CMT-CPX1

SERVICE MANUAL

Ver 1.0 2003.04

US Model
Canadian Model
E Model
Australian Model

- CMT-CPX1 is composed of following models.
  As service manuals are issued for each component model, please refer to them.

COMPONENT MODEL NAME

	CMT-CPX1
COMPACT DISC DECK RECEIVER	HCD-CPX1
SPEAKER SYSTEM	SS-CPX1

SPECIFICATIONS

Power requirements
North American model: 120 V AC, 60 Hz
Australian model: 230 – 240 V AC, 50/60 Hz
Korean model: 220 V AC, 60 Hz
Other models: 220 – 240 V AC, 50/60 Hz
Power consumption: 50 W
Dimensions (w/h/d) incl. projecting parts and controls
Amplifier/Tuner/Tape/CD section:
Approx. 174 × 240.5 × 291 mm
Speakers: Approx. 160 × 240 × 240 mm
Mass
Amplifier/Tuner/Tape/CD section:
Approx. 4.3 kg
Speakers: Approx. 3.1 kg net per speaker
Supplied accessories Remote (1)
R6 (size AA) batteries (2)
AM loop antenna (1)
FM lead antenna (1)
Speaker pads (8)

Design and specifications are subject to change without notice.

ACCESSORIES

Part No.	Description	Remark
1-477-715-11	COMMANDER, STANDARD (RM-SMR1)	
1-754-059-12	ANTENNA, LOOP (AM)	
1-793-184-22	CONNECTOR (F TYPE ADAPTOR) (FM)	
4-210-254-02	CUSHION (FOOT) (for SS-CPX1)	
4-228-952-01	COVER, BATTERY (for RM-SMR1)	
4-244-991-11	MANUAL, INSTRUCTION (ENGLISH)	
4-244-991-21	MANUAL, INSTRUCTION (FRENCH) (US, Canadian)	
4-244-991-31	MANUAL, INSTRUCTION (FRENCH, SPANISH)	(Singapore)
4-244-991-41	MANUAL, INSTRUCTION (TRADITIONAL CHINESE)	(Singapore)
4-244-991-51	MANUAL, INSTRUCTION (KOREAN) (Korean)	

MICRO Hi-Fi COMPONENT SYSTEM

9-877-172-01 **Sony Corporation**
2003D0500-1 **Home Audio Company**
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Published by Sony Engineering Corporation

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REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2003.04	New

HCD-CPX1

SERVICE MANUAL

Ver 1.0 2003.04

US Model
Canadian Model
E Model
Australian Model

HCD-CPX1 is the Amplifier, CD player, Tape Deck and Tuner section in CMT-CPX1.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM55A-K6BD44S
	Base Unit Name	BU-K6BD44S
	Optical Block Name	KSM-213DCP
	Optical Pick-up Name	KSS-213D
Tape deck Section	Model Name Using Similar Mechanism	NEW

SPECIFICATIONS

Amplifier section

For the U.S. model

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
With 4-ohm loads, both channels driven, from 100 – 10,000 Hz: rated 70 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

North American model:

Continuous RMS power output (reference): 70 + 70 W (4 ohms at 1 kHz, 10% THD)
Total harmonic distortion less than 0.9% (4 ohms at 1 kHz, 35 W)

Other models:

The following measured at 220 – 240 V AC, 50/60 Hz
DIN power output (rated): 55 + 55 W (4 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 70 + 70 W (4 ohms at 1 kHz, 10% THD)

Inputs
MD (VIDEO) IN (phono jacks): Sensitivity 450/250 mV, impedance 47 kilohms

Outputs
CD DIGITAL OUT: Optical Wavelength: 660 nm
PHONES: accepts headphones with an impedance of 8 ohms or more
SPEAKER: accepts impedance of 4 ohms

CD player section

Laser: Semiconductor laser (CD: λ=780 nm) Emission duration: continuous
Frequency response: CD: 2 Hz – 20 kHz
Wavelength: 780 – 790 nm

Tape deck section

Recording system: 4-track 2-channel stereo
Frequency response: 50 – 13,000 Hz (±3 dB), using Sony TYPE I cassettes

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section
Tuning range
North American model: 87.5 – 108.0 MHz (100 kHz step)
Other models: 87.5 – 108.0 MHz (50 kHz step)
Antenna: FM wire antenna
Antenna terminals: 75 ohms unbalanced
Intermediate frequency: 10.7 MHz

AM tuner section
Tuning range
Pan-American model: 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
Other models: 530 – 1,710 kHz (with the tuning interval set at 10 kHz)
531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna: AM loop antenna, external antenna terminal
Intermediate frequency: 450 kHz

General

Power requirements
North American model: 120 V AC, 60 Hz
Australian model: 230 – 240 V AC, 50/60 Hz
Korean model: 220 V AC, 60 Hz
Other models: 220 – 240 V AC, 50/60 Hz
Power consumption: 50 W
Dimensions (w/h/d): Approx. 174 × 240.5 × 291 mm
Mass: Approx. 4.3 kg

Design and specifications are subject to change without notice.

COMPACT DISC DECK RECEIVER

9-877-173-01
2003D0500-1
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Home Audio Company
Published by Sony Engineering Corporation

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Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 ˚C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

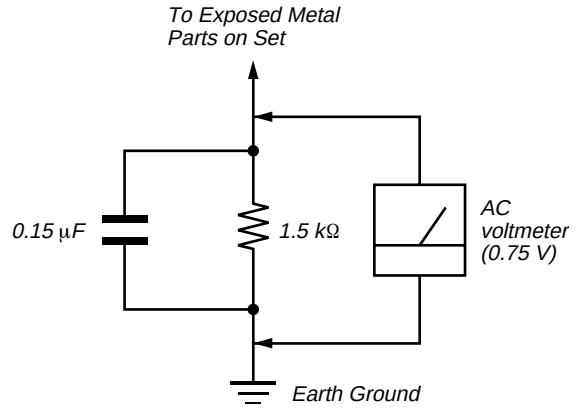

Fig. A. Using an AC voltmeter to check AC leakage.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. This label is located on the rear exterior.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 ˚C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350 ˚C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscou-s (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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SECTION 1
SERVICING NOTES

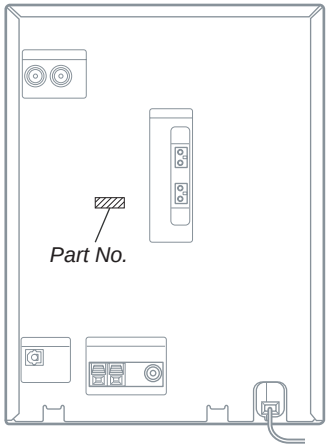
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

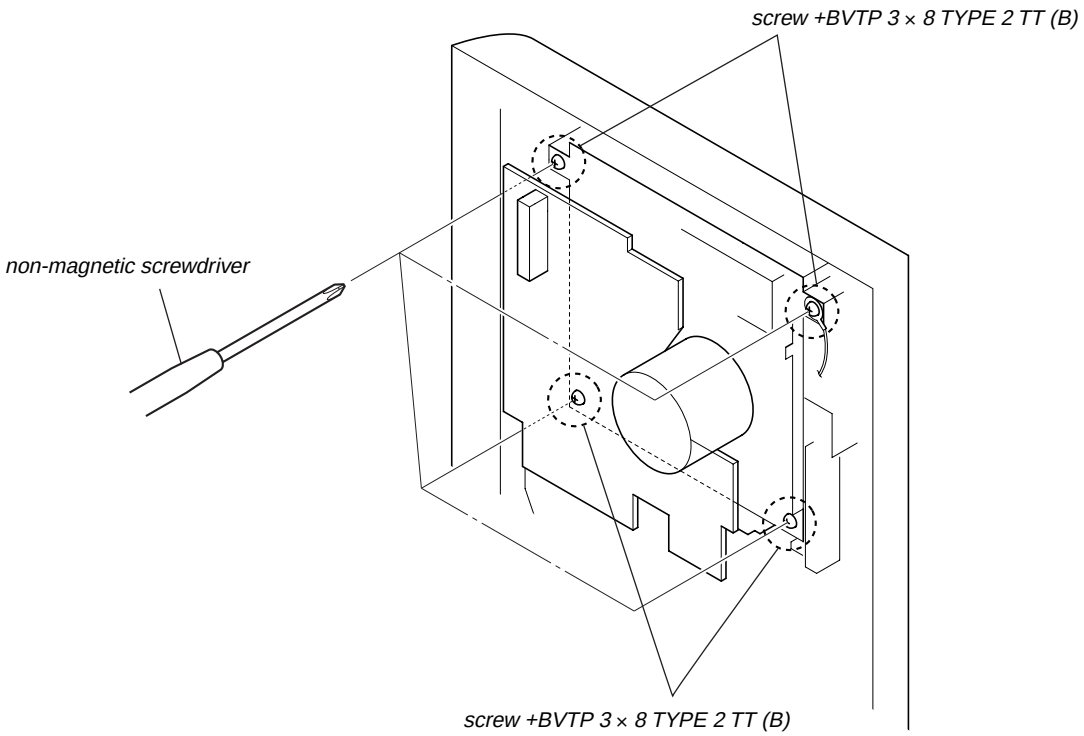
MODEL IDENTIFICATION
– Back Panel –



Model Name	Part No.
US and Canadian models	4-244-015-1□
Singapore model	4-244-015-2□
Australian model	4-244-015-3□
Korean model	4-244-015-4□

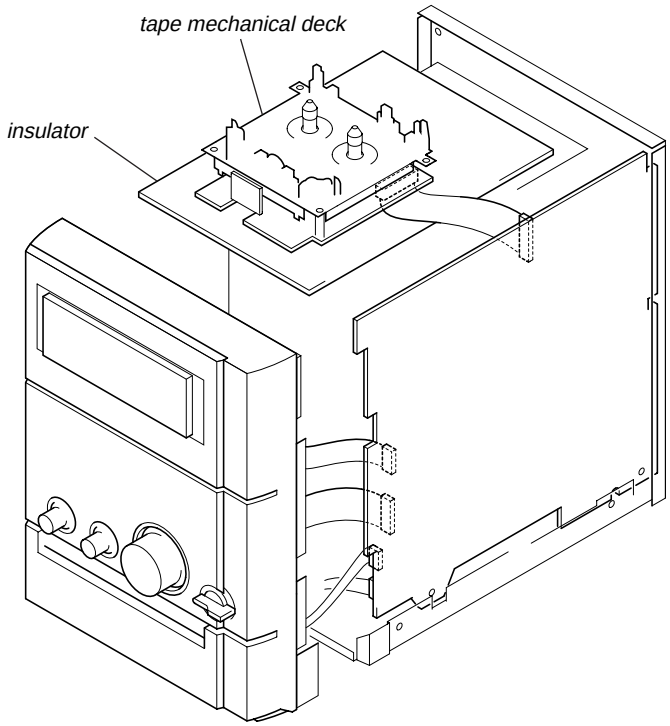
NOTE ON INSTALLING AND REMOVING THE TAPE MECHANICAL DECK

To prevent four screws of +BVTP 3 × 8 TYPE 2 TT (B), that fix the mechanical deck to the front panel, from being magnetized, must not use a magnetic screwdriver.



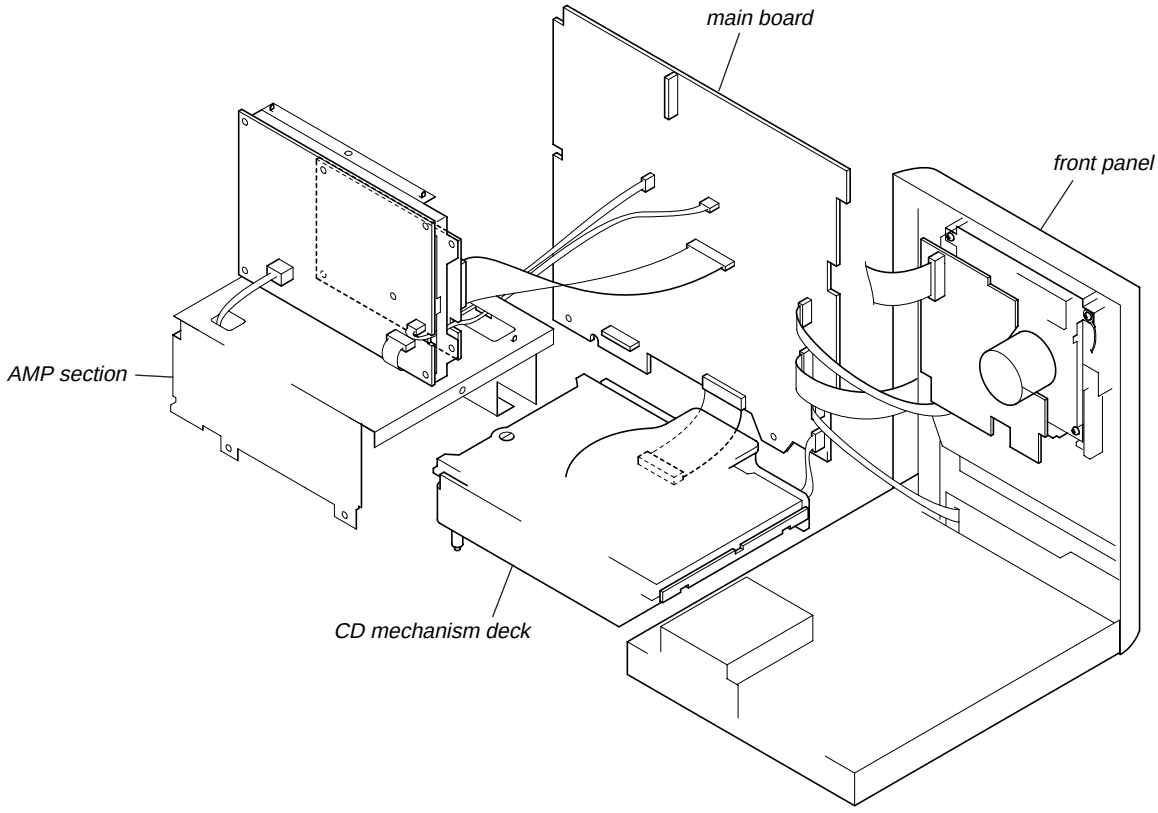
TAPE MECHANICAL DECK SERVICE POSITION

Set up the service position with putting an insulator under the mechanical deck as the figure shown below.



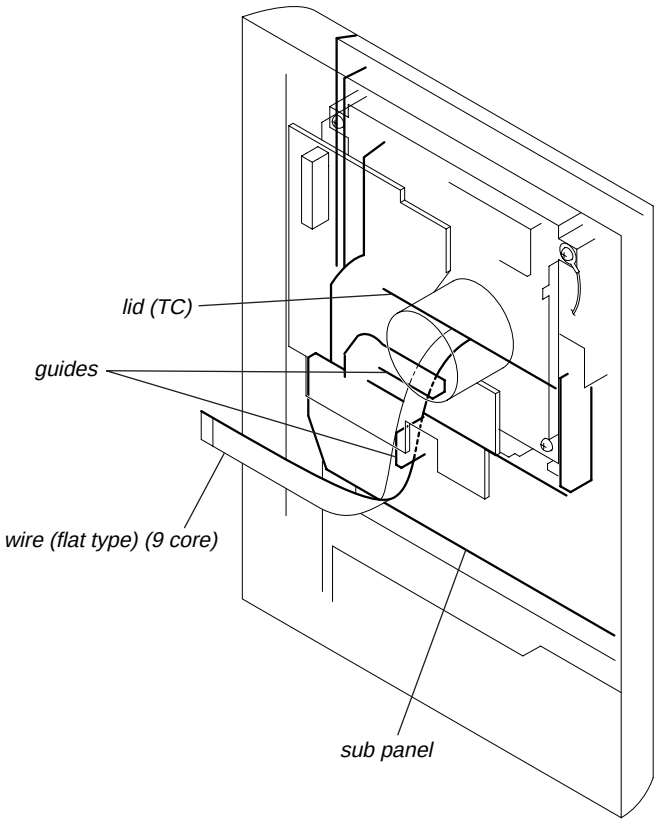
CD MECHANISM DECK SERVICE POSITION

Set up the service position for the CD mechanism deck with disassembling the entire set as the figure shown below.



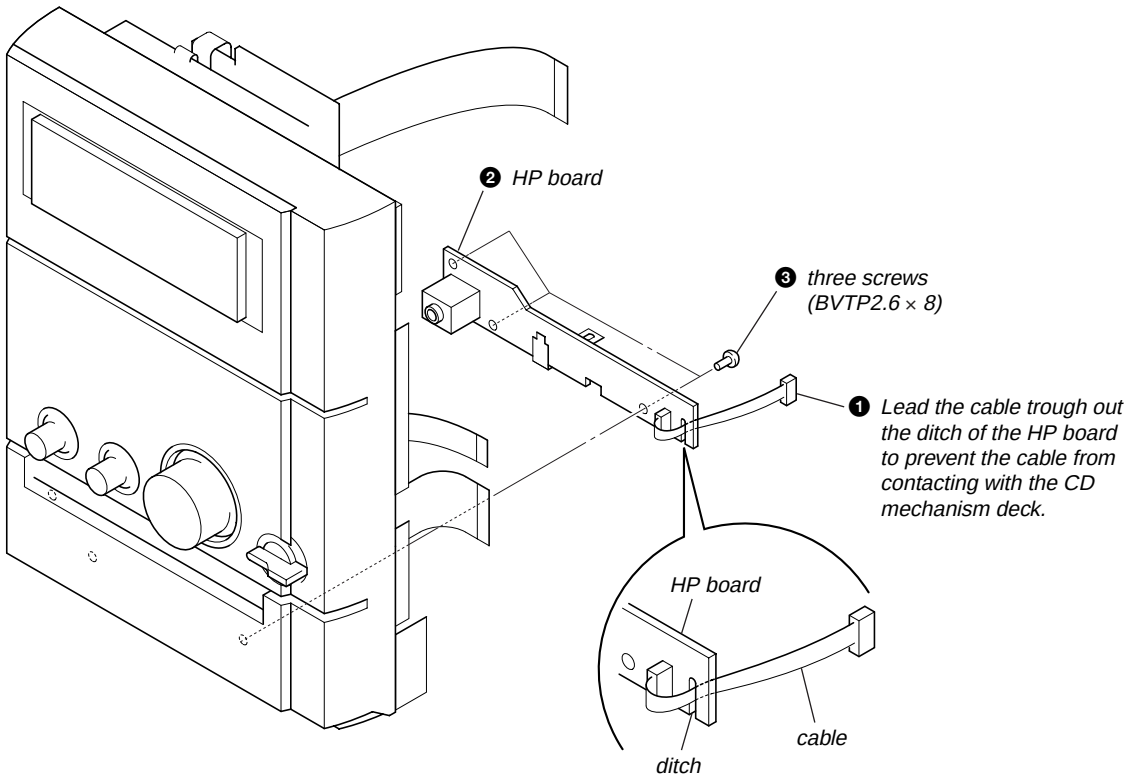
NOTE ON LEADING THE WIRE (FLAT TYPE) (9 CORE)

Lead the wire (flat type) (9 core) properly to prevent the wire from coming out from the right side of the guides on the sub panel or sagging inside of the lid.

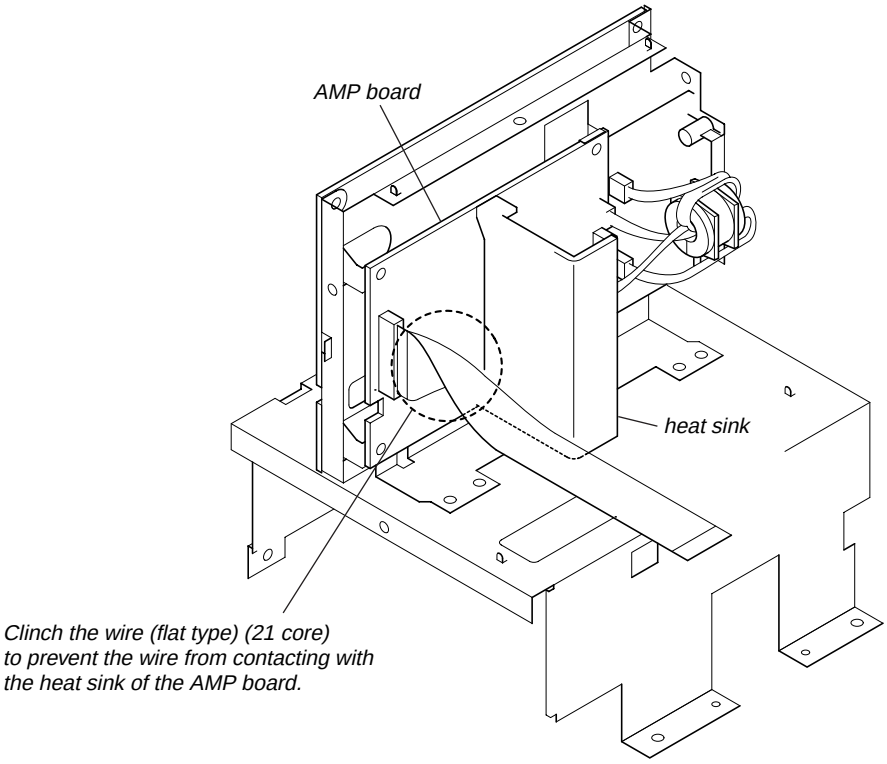


NOTE ON INSTALLING THE HP BOARD

Note: Follow the assembly procedure in the numerical order given.

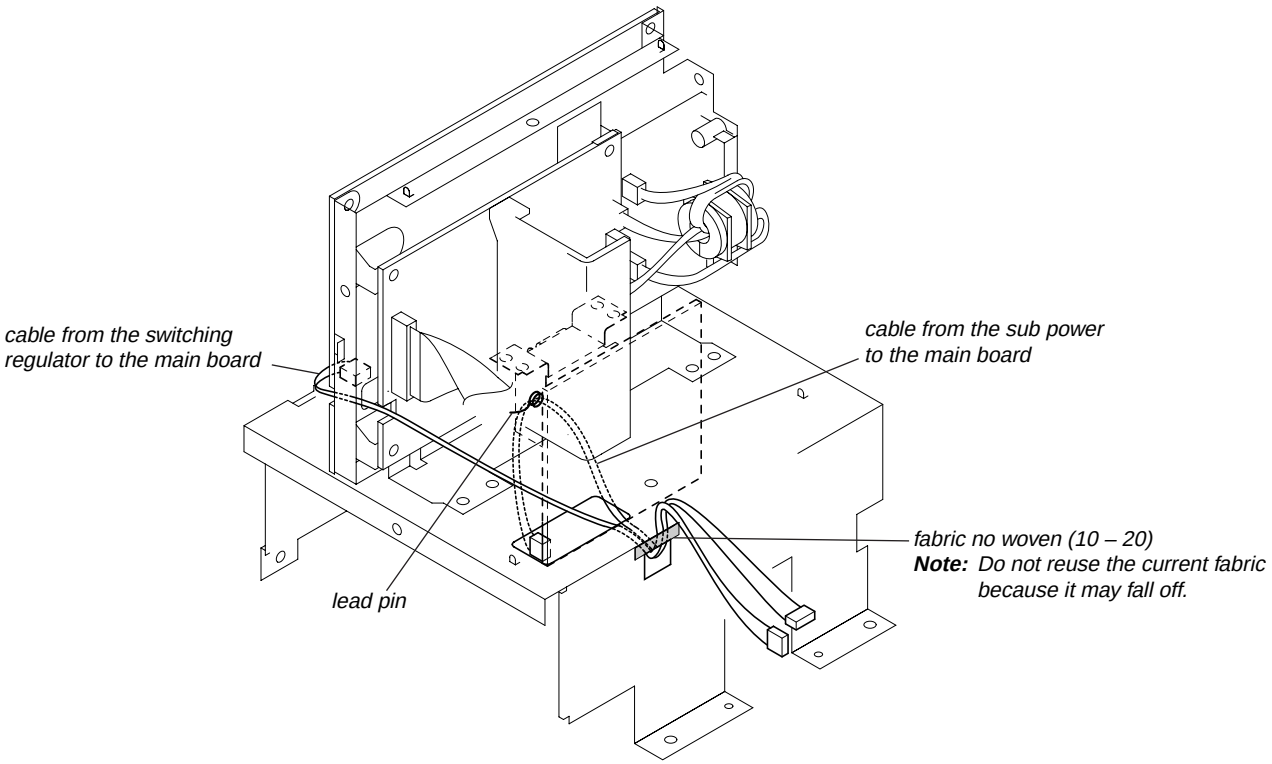

❷ HP board
❸ three screws (BVTP2.6 × 8)
❶ Lead the cable trough out the ditch of the HP board to prevent the cable from contacting with the CD mechanism deck.
HP board
cable
ditch

CLINCHING THE WIRE (FLAT TYPE) (21 CORE)


AMP board
heat sink
Clinch the wire (flat type) (21 core)
to prevent the wire from contacting with
the heat sink of the AMP board.

HANDLING TWO CABLES FROM THE SUB POWER AND THE SWITCHING REGULATOR TO THE MAIN BOARD

Note: *Fix two cables with the lead pin and the fabric non woven (10 – 20), or they may sag and contact with the CD mechanism deck.*


cable from the switching
regulator to the main board
cable from the sub power
to the main board
fabric no woven (10 – 20)
Note: Do not reuse the current fabric
because it may fall off.
lead pin

SECTION 2
GENERAL

This section is extracted from instruction manual.

• LOCATION OF CONTROLS

– Front View –

ALPHABETICAL ORDER

A – Q

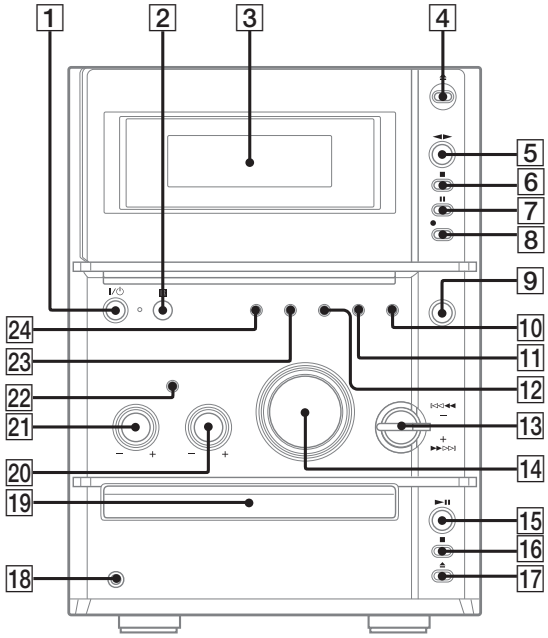
BASS +/– 21
CD SYNCHRO 11
Disc tray 19
DISPLAY 24
Display window 3
DSG 22
FM MODE 12
FUNCTION 10
PHONES jack 18
PLAY MODE/DIRECTION 23

R – Z

Remote sensor 2
REPEAT 12
TREBLE +/– 20
TUNER/BAND 9
TUNING MODE 23
TUNING +/– 13
VOLUME +/– 14

BUTTON DESCRIPTIONS

I/⏻ (power) 1
TAPE ⏏ (eject) 4
TAPE ◄► (play) 5
TAPE ■ (stop) 6
TAPE ❚❚ (pause) 7
TAPE ● REC (record) 8
⏮◄◄/►►⏭ (rewind/fast forward, go back/go forward) 13
CD ►❚❚ (play pause) 15
CD ■ (stop) 16
CD ⏏ (eject) 17



– Remote Control –

ALPHABETICAL ORDER

A – E

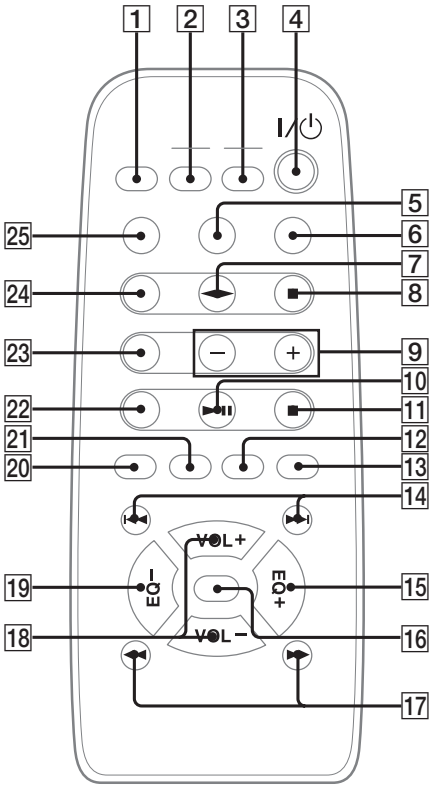
CD 22
CLEAR 20
CLOCK/TIMER SELECT 2
CLOCK/TIMER SET 3
DISPLAY 6
ENTER 13
EQ 16
EQ + 15
EQ – 19

F – Z

FUNCTION 25
PLAY MODE 21
REPEAT 12
SLEEP 1
TAPE 24
TUNER/BAND 23
TUNER MEMORY 5
TUNING MODE 21
TUNING +/– 9
VOL +/– 18

BUTTON DESCRIPTIONS

I/⏻ (power) 4
TAPE ◄/► (play) 7
TAPE ■ (stop) 8
CD ►II (play pause) 10
CD ■ (stop) 11
I◄◄ /►►I (go back/go forward) 14
◄◄/►► (rewind/fast forward) 17



Setting the clock

1 Press I/⏻ to turn on the system.

2 Press CLOCK/TIMER SET.

3 Press I◄◄ or ►►I repeatedly to set the hour.

4 Press ENTER.

5 Press I◄◄ or ►►I repeatedly to set the minute.

6 Press ENTER.

The clock starts working.

To adjust the clock

1 Press CLOCK/TIMER SET.

2 Press I◄◄ or ►►I until “CLOCK” appears, then press ENTER.

3 Do the same procedures as step 3 to 6 above.

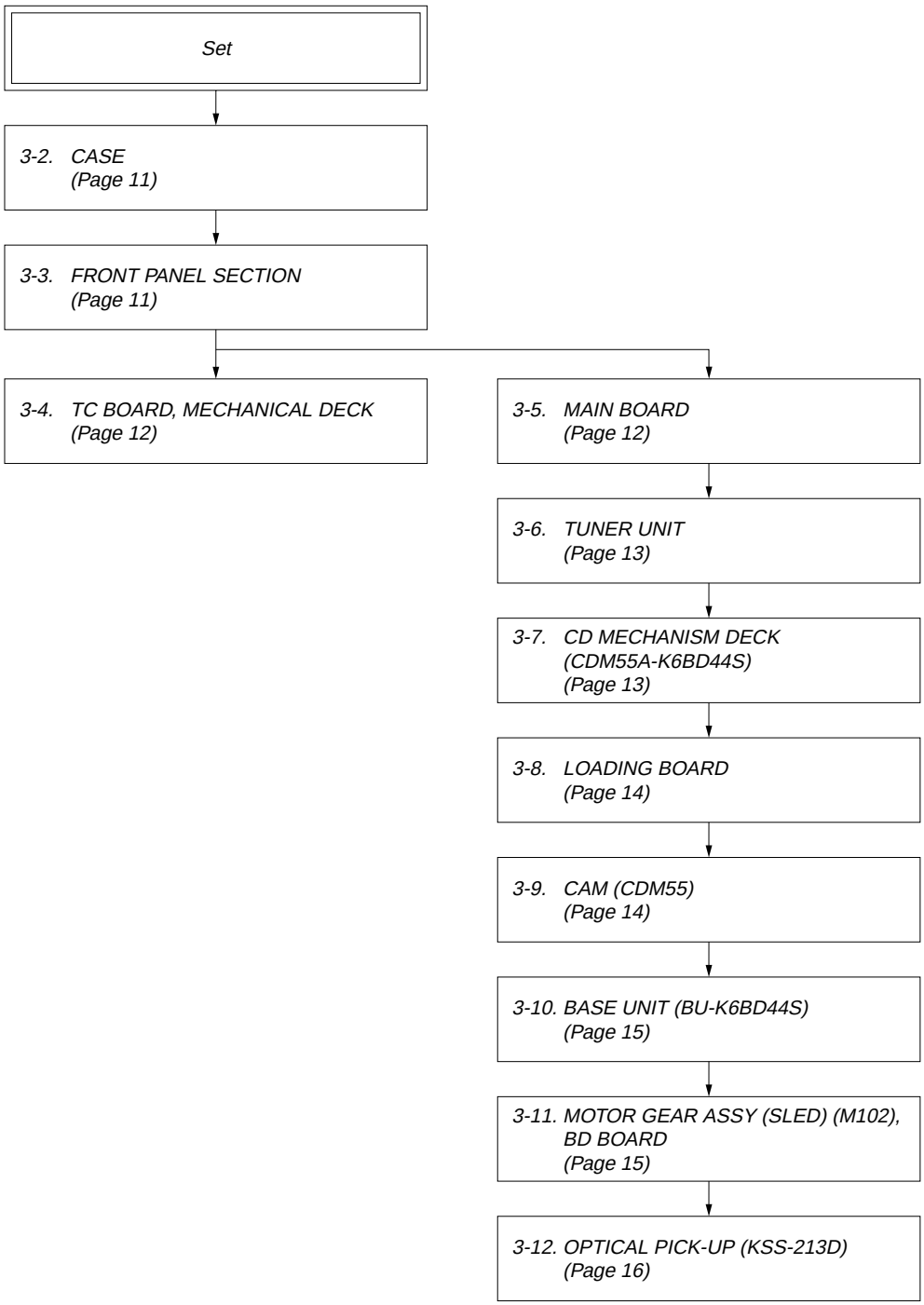
Note

The clock is not displayed in Power Saving Mode.

SECTION 3
DISASSEMBLY

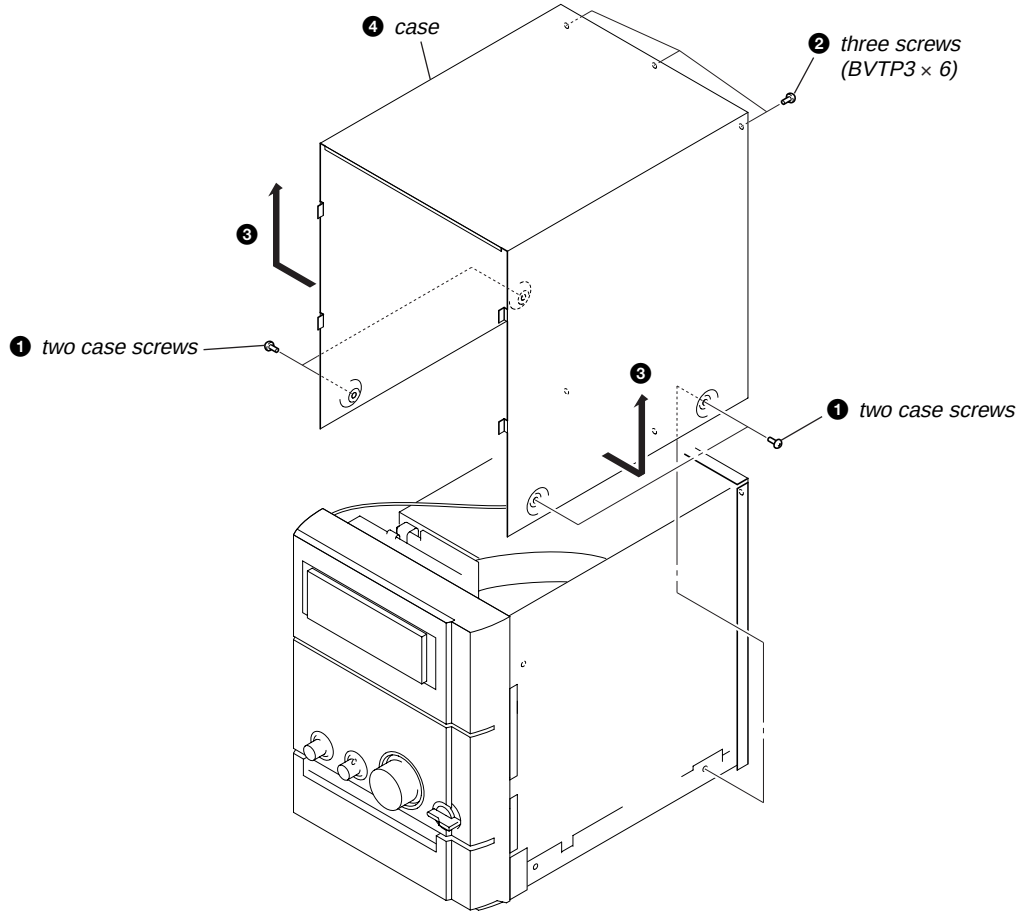
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

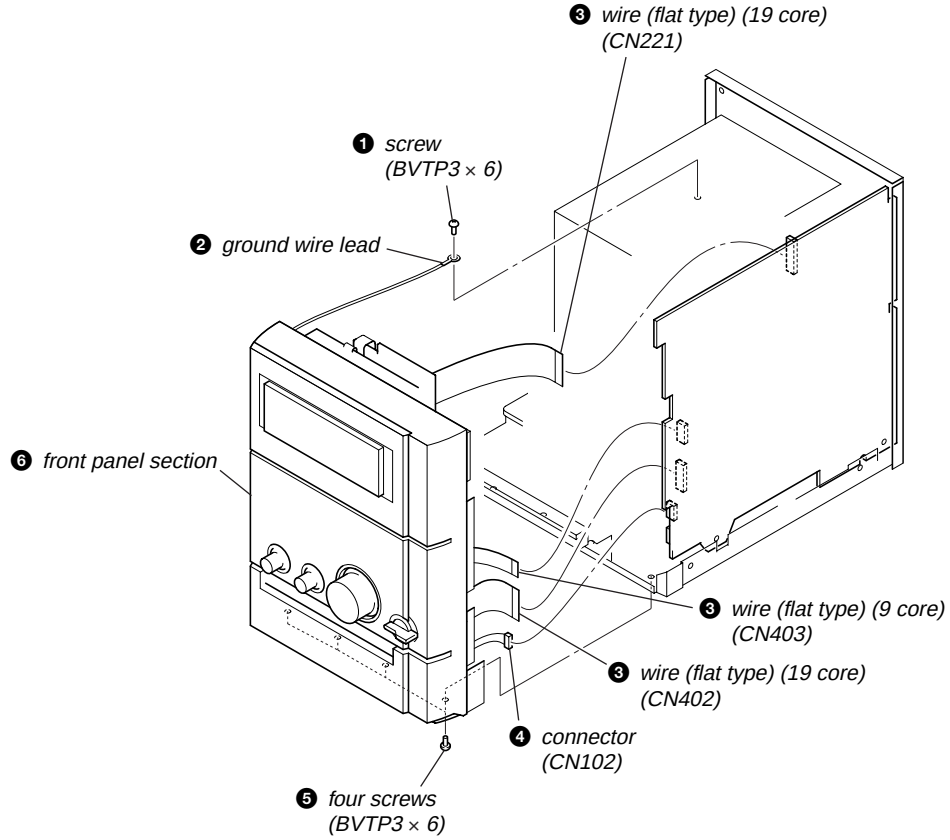


Note: Follow the disassembly procedure in the numerical order given.

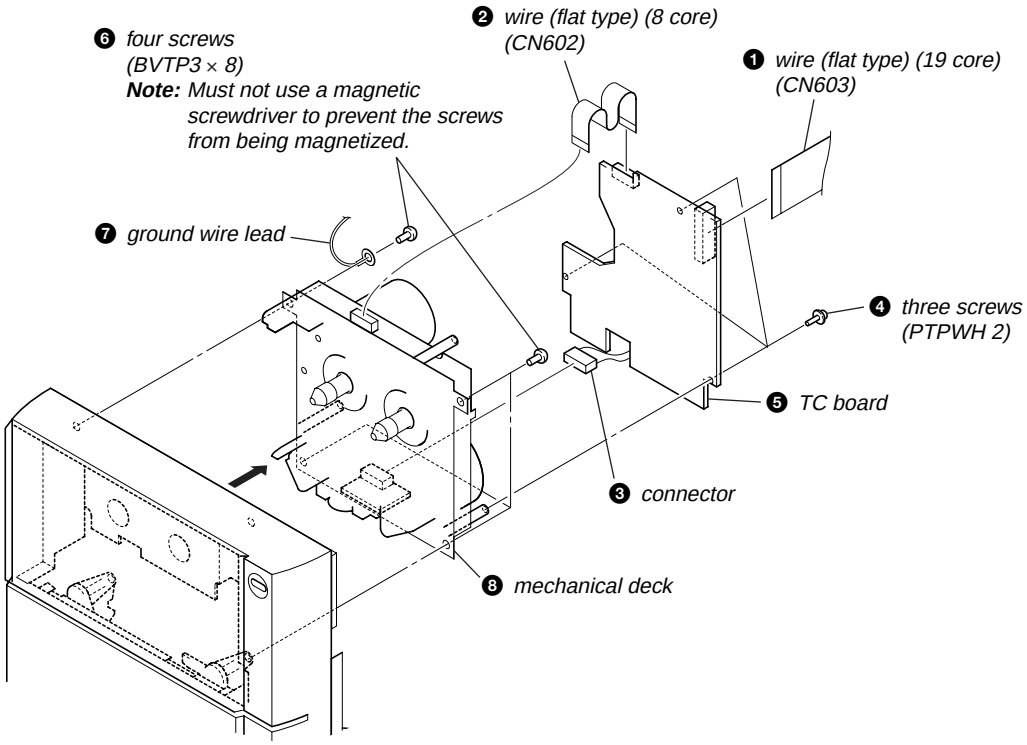
3-2. CASE



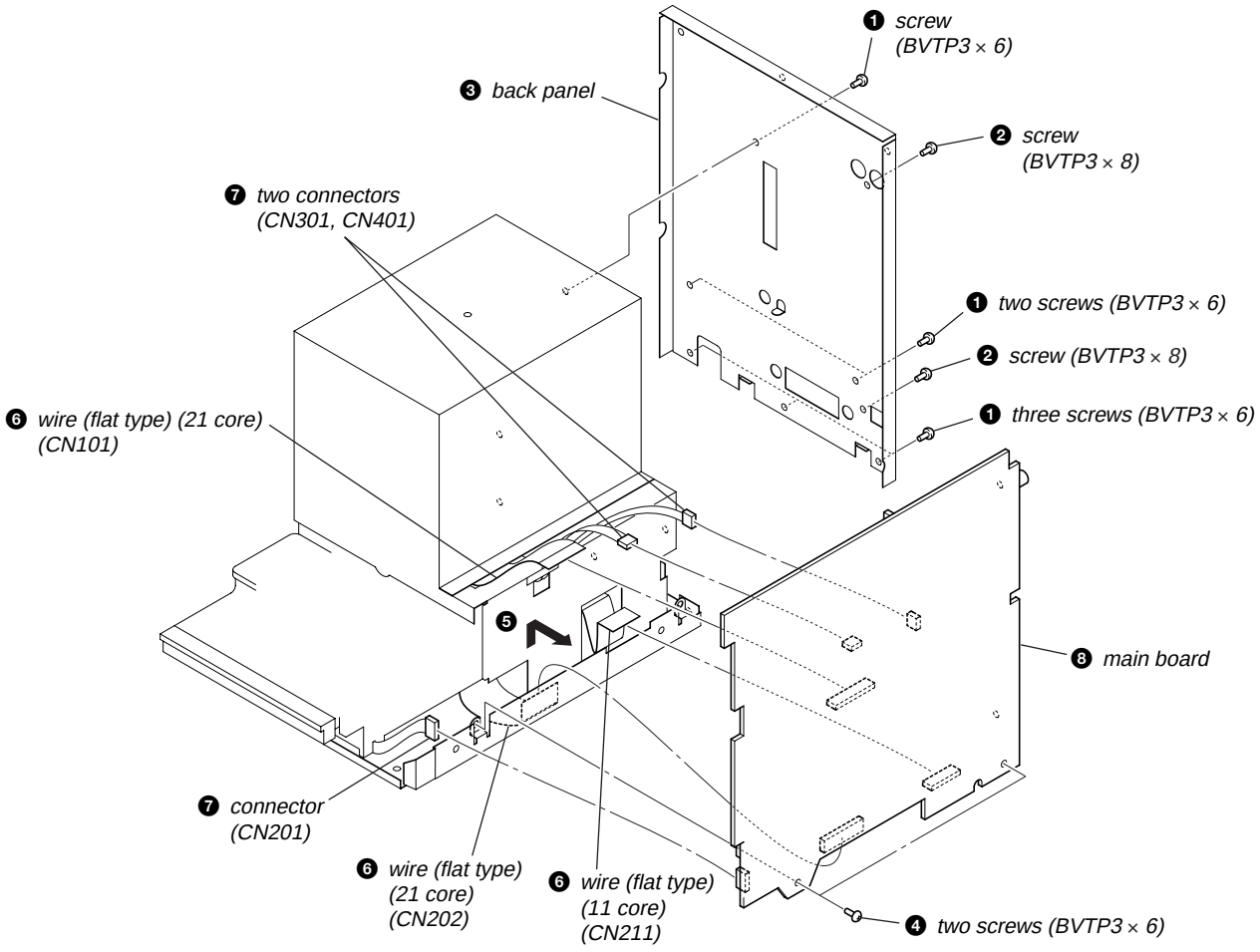
3-3. FRONT PANEL SECTION


❸ wire (flat type) (19 core) (CN221)
❶ screw (BVTP3 × 6)
❷ ground wire lead
❻ front panel section
❸ wire (flat type) (9 core) (CN403)
❸ wire (flat type) (19 core) (CN402)
❹ connector (CN102)
❺ four screws (BVTP3 × 6)

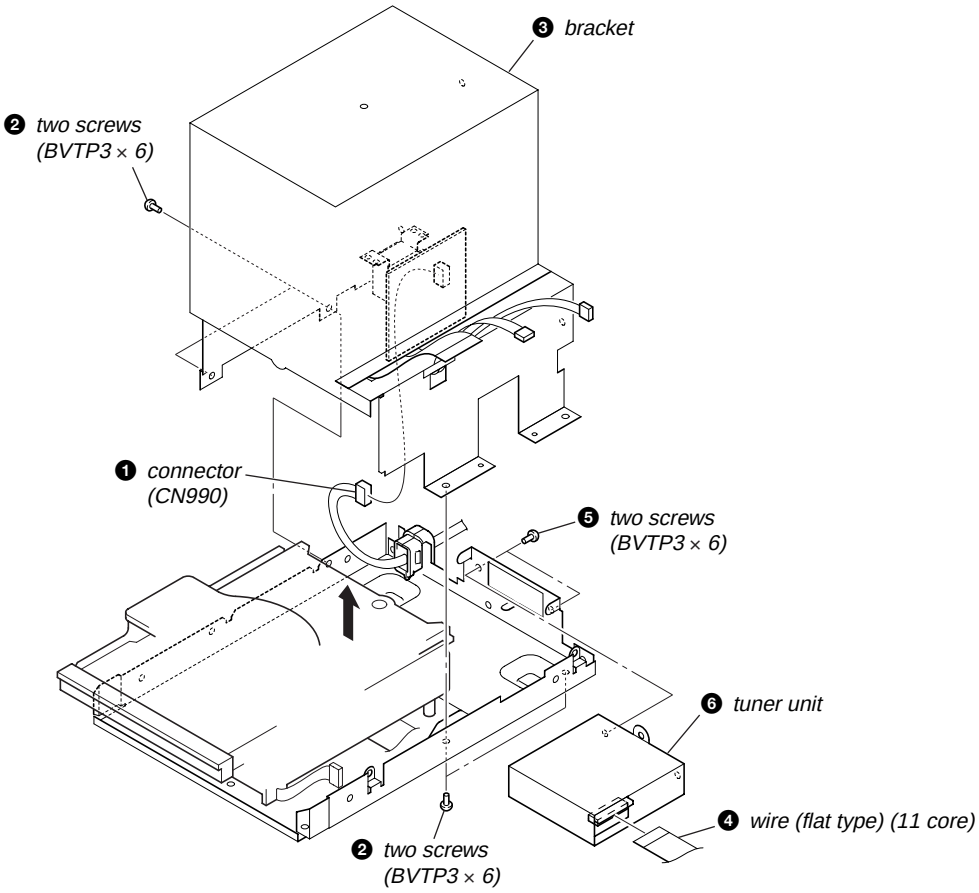
3-4. TC BOARD, MECHANICAL DECK



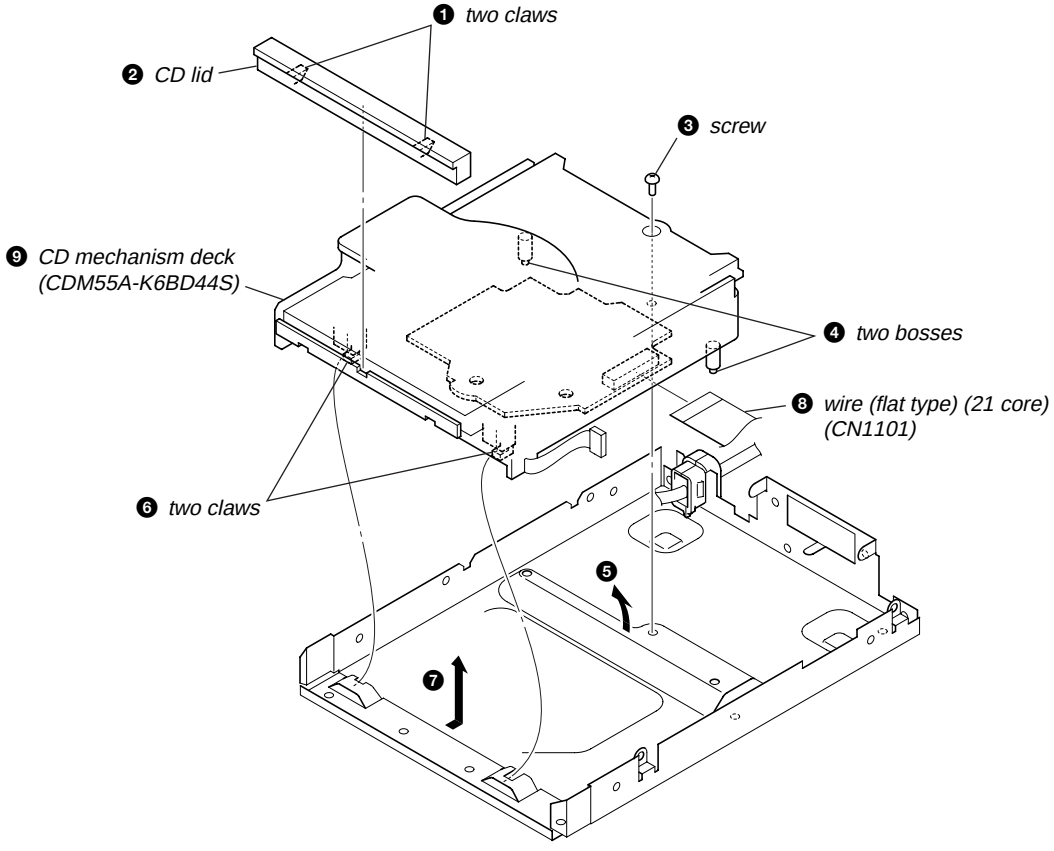
3-5. MAIN BOARD



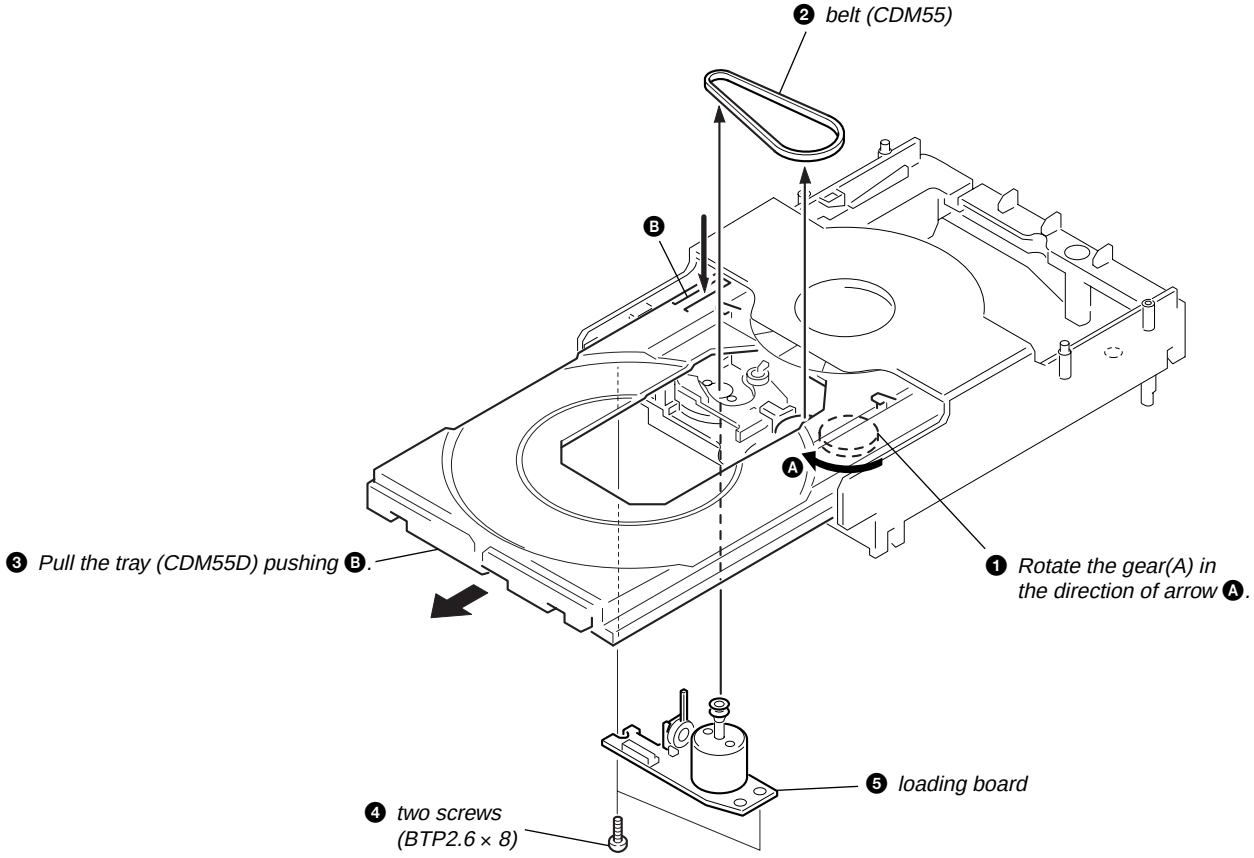
3-6. TUNER UNIT


❸ bracket
❷ two screws (BVTP3 × 6)
❶ connector (CN990)
❺ two screws (BVTP3 × 6)
❻ tuner unit
❹ wire (flat type) (11 core)
❷ two screws (BVTP3 × 6)

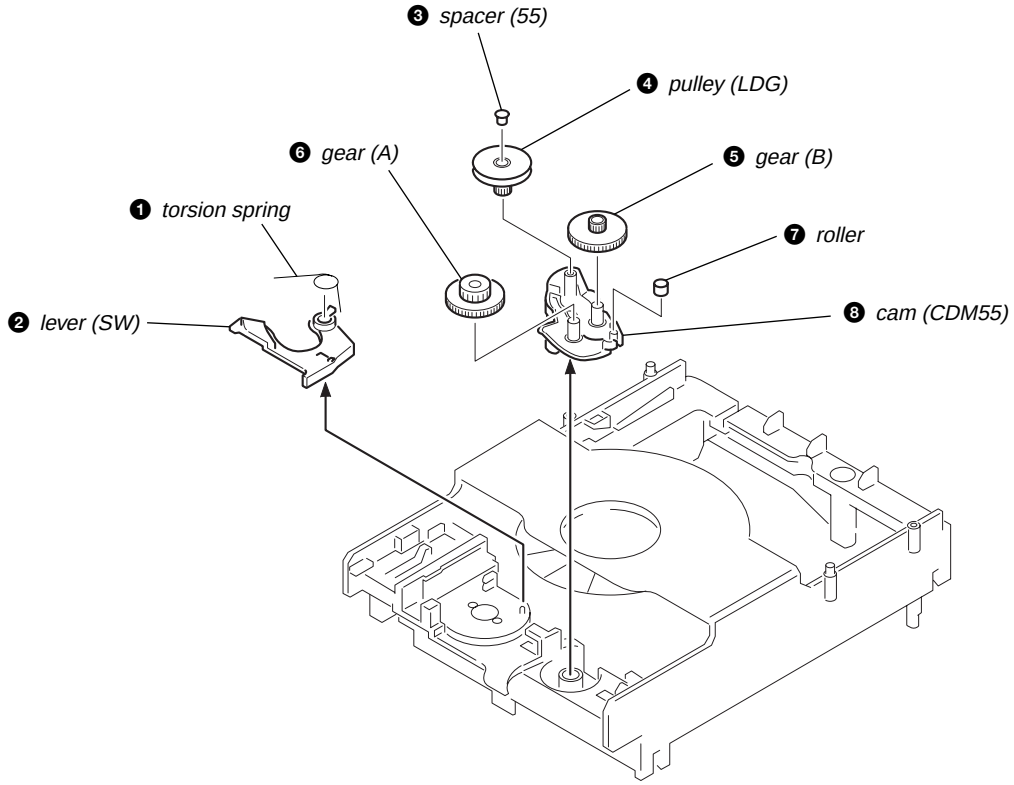
3-7. CD MECHANISM DECK (CDM55A-K6BD44S)



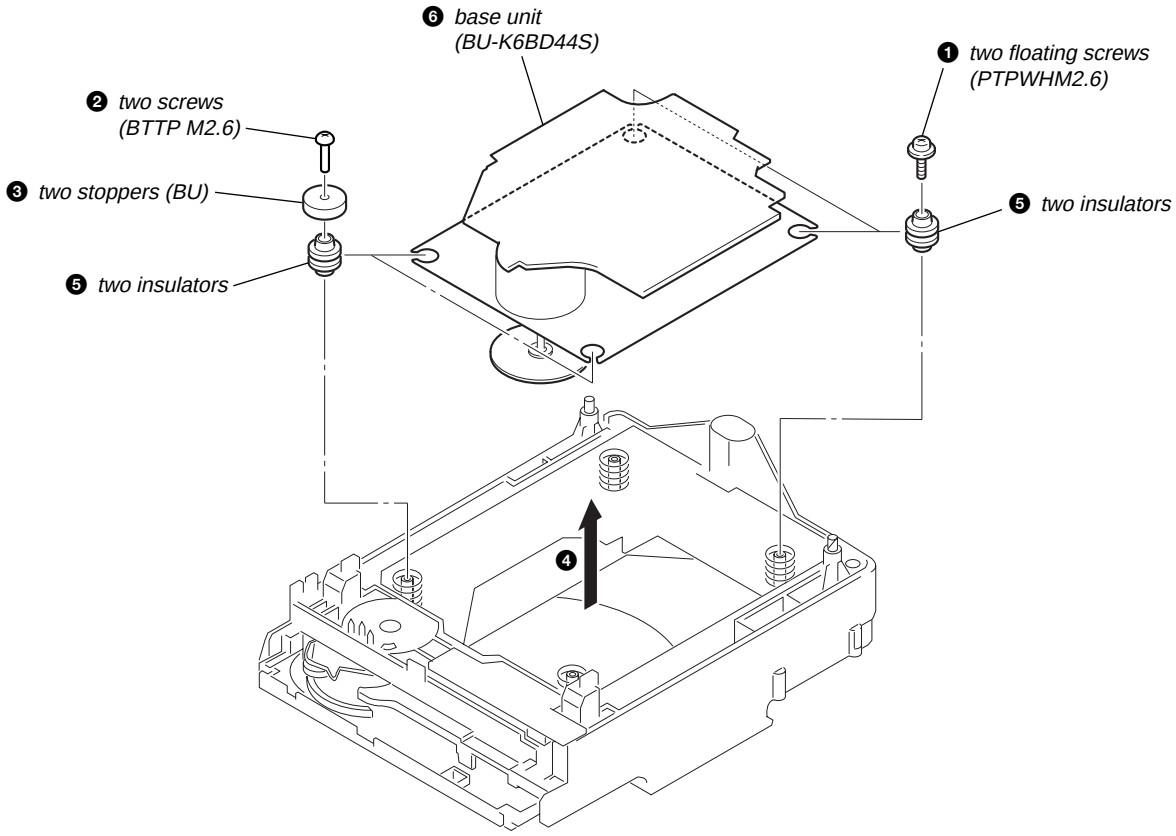
3-8. LOADING BOARD


❷ belt (CDM55)
Ⓑ
Ⓐ
❸ Pull the tray (CDM55D) pushing Ⓑ.
❶ Rotate the gear(A) in the direction of arrow Ⓐ.
❺ loading board
❹ two screws (BTP2.6 × 8)

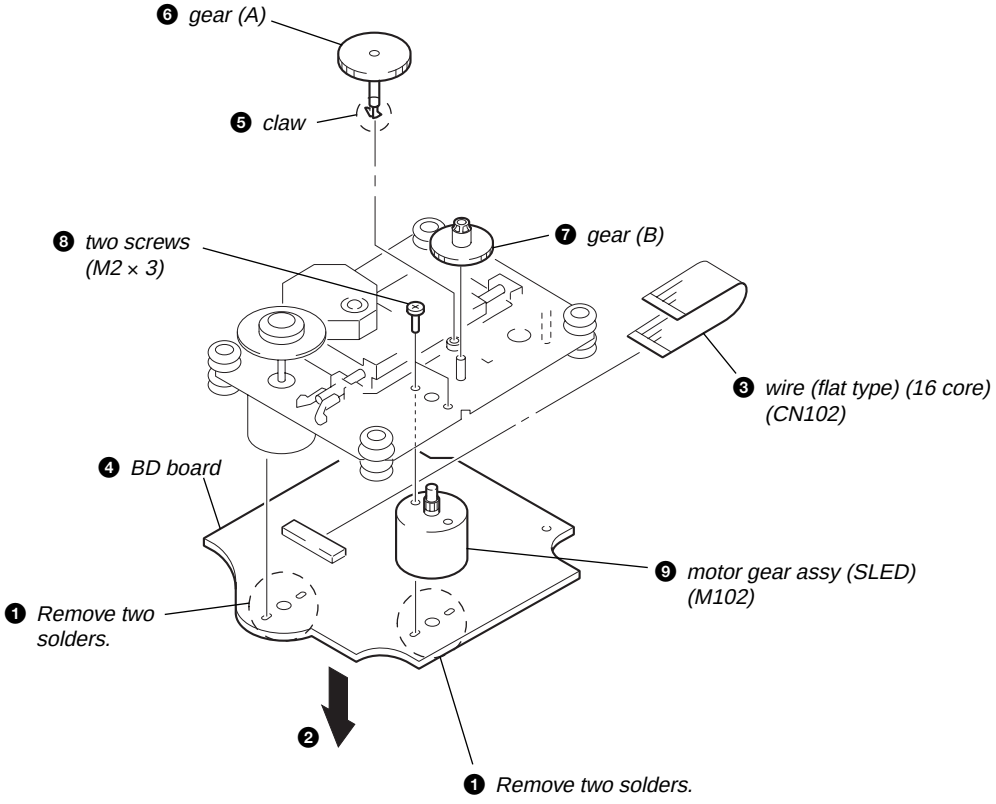
3-9. CAM (CDM55)



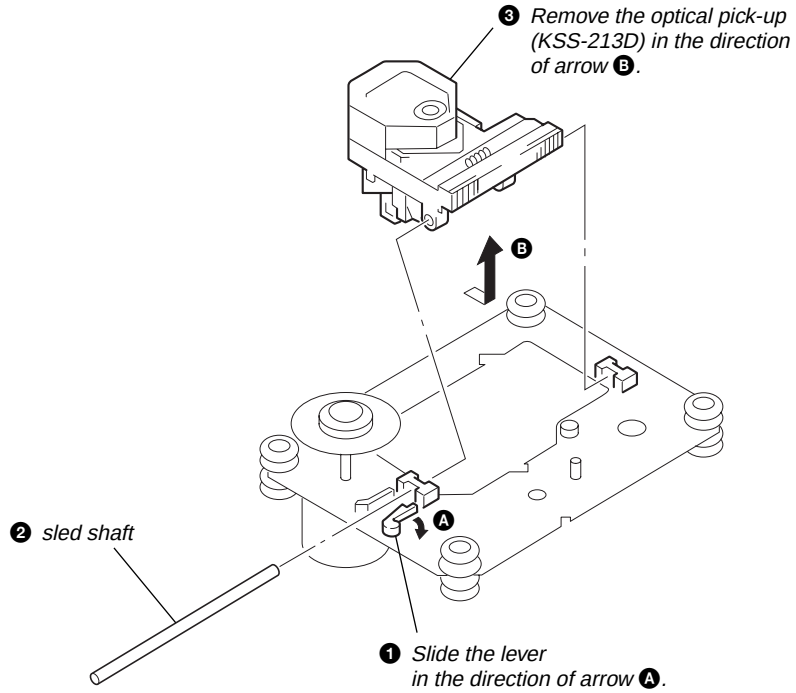
3-10. BASE UNIT (BU-K6BD44S)



3-11. MOTOR GEAR ASSY (SLED) (M102), BD BOARD



3-12. OPTICAL PICK-UP (KSS-213D)



SECTION 4
TEST MODE

[CMN (MC) TEST MODE]

• This mode is used to check operations of Amplifier.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press three keys of DSG, REPEAT and DISPLAY simultaneously.
3. When the CMN (MC) test mode is activated, "⇆" blinks on the liquid crystal display.
4. Turn the BASS knob counterclockwise, "TONE MIN" is displayed on the liquid crystal display. Turn the BASS knob clockwise, "TONE MAX" is displayed on the liquid crystal display.
   Turn the TREBLE knob clockwise or counterclockwise, "TONEFLAT" is displayed on the liquid crystal display.
   Turn the VOLUME knob counterclockwise, "VOL MIN" is displayed on the liquid crystal display. Turn the VOLUME knob clockwise, "VOL MAX" is displayed on the liquid crystal display.
5. To release this mode, press the I/⏻ key.

[PANEL (GC) TEST MODE]

• This mode is used to check the liquid crystal display, LED, model, destination, software version and key.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press three keys of DSG, PLAY MODE and DISPLAY simultaneously.
3. Liquid crystal display and LEDs are all turned on.
4. When you want to enter the model, destination and version display mode, press the REPEAT key. The model and destination are displayed alternately on the liquid crystal display.
5. Each time REPEAT key is pressed, the display changes starting from MD version, MC version, GC version, CD version, CDD version, CDMA version, CDMB version, BDA version, BDB version, ST version, TA version, TM version, and TC version this order, and returns to the MD version display on the liquid crystal display.
6. When FUNCTION key is pressed while the version numbers are being displayed except model and destination, year, month and day of the software creation display. When FUNCTION key is pressed again, the display returns to the software version display. When REPEAT key is pressed while year, month and day of the software creation are being displayed, the year, month and day of creation of the software versions are displayed on the liquid crystal display in the same order of version display.
7. Press the PLAY MODE key, the key check mode is activated.
8. In the key check mode, the liquid crystal display displays "K0". Each time a key is pressed, "K" value increases. However, once a key is pressed, it is no longer taken into account.
9. To release this mode, press three keys in the same manner as step 2, or disconnect the power cord.

[COLD RESET]

• The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press three keys of I/⏻, ■ (CD) and ■ (TAPE) simultaneously.
3. The liquid crystal display becomes blank instantaneously, and the set is reset.

[SHIP MODE (NO MEMORY CLEAR)]

• This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of ⏏ (CD), ■ (CD) and DISPLAY simultaneously.
4. After the "STANDBY" display blinks, "LOCK" is displayed on the liquid crystal display, and the ship mode is set.

[SHIP MODE (MEMORY CLEAR)]

• This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of ⏏ (CD), CD ►II and DISPLAY simultaneously.
4. After the "STANDBY" display blinks, "LOCK" is displayed on the liquid crystal display, and the ship mode is set.

[CD TRAY LOCK MODE]

• This mode is used to unable to take sample disc out of tray in the shop.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. While pressing the ⏏ (CD) key, press the ■ (CD) key for 5 seconds.
4. The message "LOCKED" is displayed on the liquid crystal display and the tray is locked. (Even if pressing the ⏏ (CD) key, the message "LOCKED" is displayed on the liquid crystal display and the tray is locked)
5. To release from this mode, pressing the ⏏ (CD) key, press the ■ (CD) key for 5 seconds.
6. The message "UNLOCKED" is displayed on the liquid crystal display and the tray is unlocked.

[TUNER STEP CHANGE MODE] (Singapore, Korean and Australian models)

• A step of AM channels can be changed over between 9 kHz and 10 kHz.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "TUNER", and press the BAND key to select "AM".
3. Press the I/⏻ key to turn the power OFF.
4. Press two keys of I/⏻ and ►► ▷▷I simultaneously.
5. The message "AM 9K STEP" or "AM 10K STEP" is displayed on the liquid crystal display, and thus the channel step is changed over.

[CD SERVICE MODE]

• This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of DSG , REPEAT and ■ (TAPE) simultaneously.
4. Press the ►► ▷▷I key to move the optical pick-up to outside track, or press the I◁◁ ◄◄ key to inside track.
5. To release this mode, press the I/⏻ key.

[AGING MODE]

- This mode can be used for operation check of CD section and tape deck section.
  CD section and tape deck section work in parallel.

If an error occurred:

The aging operation stops only an error occurred sections and display then status.

If no error occurs:

The aging operation continues repeatedly.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Set disc on the tray and set tape into the deck.
4. Press the REPEAT key to "REPEAT" off.
5. Press three keys of DSG, PLAY MODE and ■ (TAPE) simultaneously.
6. Aging operations of CD and tape are started at the same time.
7. To release this mode, press the I/⏻ key.

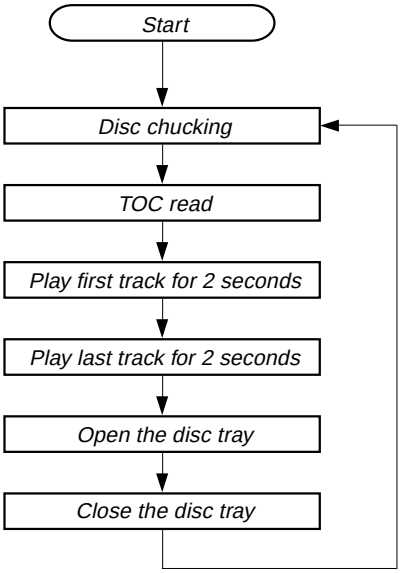
1. Display at the Aging Mode

Display operating state of CD section and tape deck section alternately.
If an error occurred, stop display which that section.

2. CD Section

The sequence during the aging mode is following as below.
Display at the aging mode is the same as the normal operation.

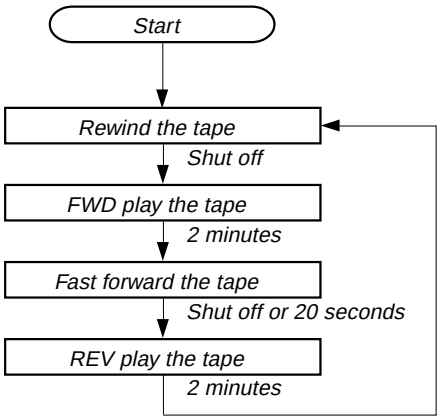
Aging mode sequence (CD section) :



3. Tape Deck Section

The sequence during the aging mode is following as below.
If an error occurred, stop display that step.
Display at the aging mode is "TAPE AG—".

Aging mode sequence (Tape deck section) :



[CD ERROR CODE MODE]

- This mode can be used for error display of CD section.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of DSG, REPEAT and ❚❚ simultaneously.

Note: Error code is not displayed on the liquid crystal display.

[CD SERVO TEST MODE]

- This mode used to ckeck operation of optical pick-up.

Procedure:

1. Press the I/⏻ key to turn the power ON.
2. Press the FUNCTION key to select "CD".
3. Press three keys of DSG, PLAY MODE and ❚❚ simultaneously.
4. When the CD servo test mode is activated, optical pick-up moves.

[5 REPEAT OFF MODE]

- Number of repeat for CD playback is 5 times when the repeat mode is "REPEAT". This mode is used to enables CD to repeat playback for limitless times.

Procedure:

1. Press the I/⏻ key to turn the power on.
2. Press the FUNCTION key to select "CD".
3. Press three keys of DSG, ▶▶ ▷▷❙ and ■ (TAPE) simultaneously.
4. When the 5 repeat off mode is activated, "LIMIT OF" is displayed on the liquid crystal display.

[CHANGE-OVER FUNCTION OF EXTERNAL INPUT]

- This mode is used to enable function of external input to change over between MD and VIDEO.

Procedure:

1. Set to standby state.
2. Press two keys of I/⏻ and FUNCTION simultaneously.
3. The function of external input changes over to MD or VIDEO.

SECTION 5
ELECTRICAL ADJUSTMENTS

DECK SECTION | 0 dB=0.775 V

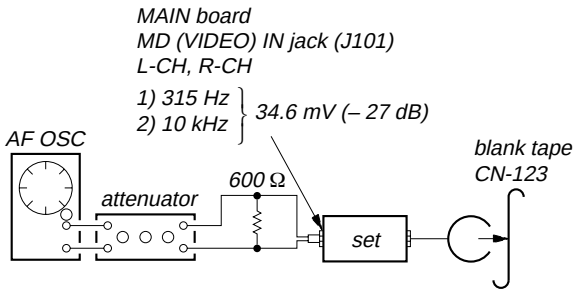
Note: Confirm each contents of this section first of all. If the results are not satisfied, do the adjustment.

1. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
2. The adjustments should be performed in the order given in this service manual.
3. The adjustments should be performed for both L-CH and R-CH.

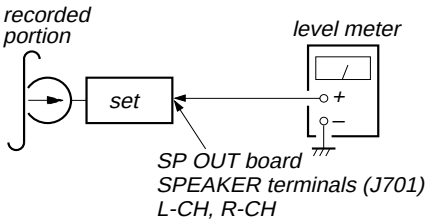
REC BIAS ADJUSTMENT

Procedure:

1. Press the [FUNCTION] key to select "MD" or "VIDEO".
2. Set the tape into the deck.
3. After pressing [● REC] key, press [II] (TAPE) key to start recording.
4. Mode: Record



5. Mode: Playback



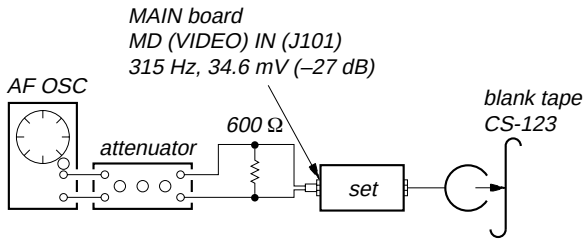
6. Confirm the playback signal recorded in step 3 becomes adjustable level as follows.
   If these levels are out of specified values, adjust the RV653 (L-CH) and RV603 (R-CH) on the TC board to repeat steps 4 and 5.

Specified values: Playback output of 315 Hz to playback output of 10 kHz: ± 2.0 dB
Adjustment Location: TC board

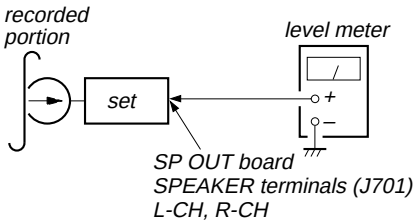
REC LEVEL ADJUSTMENT

Procedure:

1. Press the [FUNCTION] key to select "MD" or "VIDEO".
2. Set the tape into the deck.
3. After pressing [● REC] key, press [II] (TAPE) key to start recording.
4. Mode: Record



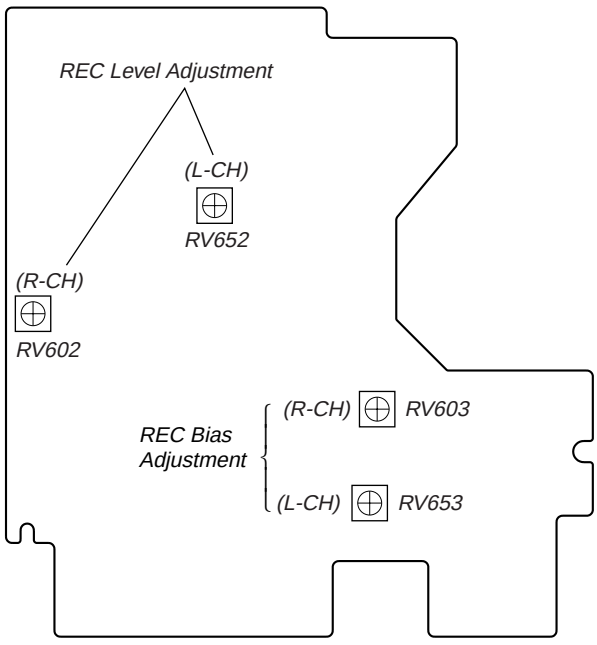
5. Mode: Playback



6. Confirm the play back signal recorded in step 3 becomes adjustable level as follows.
   If these levels are out of specified values, adjust the RV652 (L-CH) and RV602 (R-CH) on the TC board to repeat steps 4 and 5.

Specified values: Playback level 30.8 to 38.8 mV (–28 to –26 dB)
Adjustment Location: TC board

– TC BOARD (Component Side) –

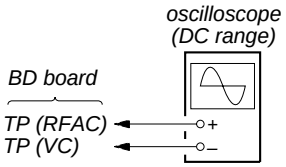


CD SECTION

Note:

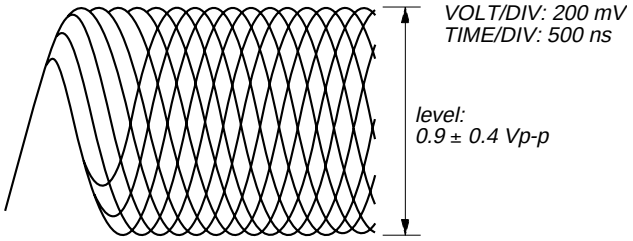
1. CD Block is basically constructed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Check the focus bias check when optical pick -up block is replaced.

FOCUS BIAS CHECK



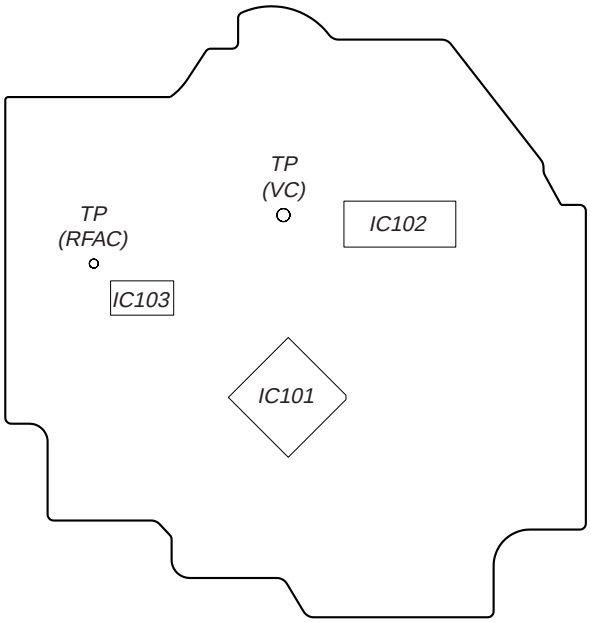
Procedure :

1. Connect oscilloscope to TP (RFAC) and TP (VC) on the BD board.
2. Press the I/⏻ button to turn the power ON, and press the ⏏ (CD) button to open the CD disc tray.
3. Set disc (YEDS-18) on the tray and press the CD ►II button to playback.
4. Confirm that oscilloscope waveform is as shown in the figure below. (eye pattern)
   A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.



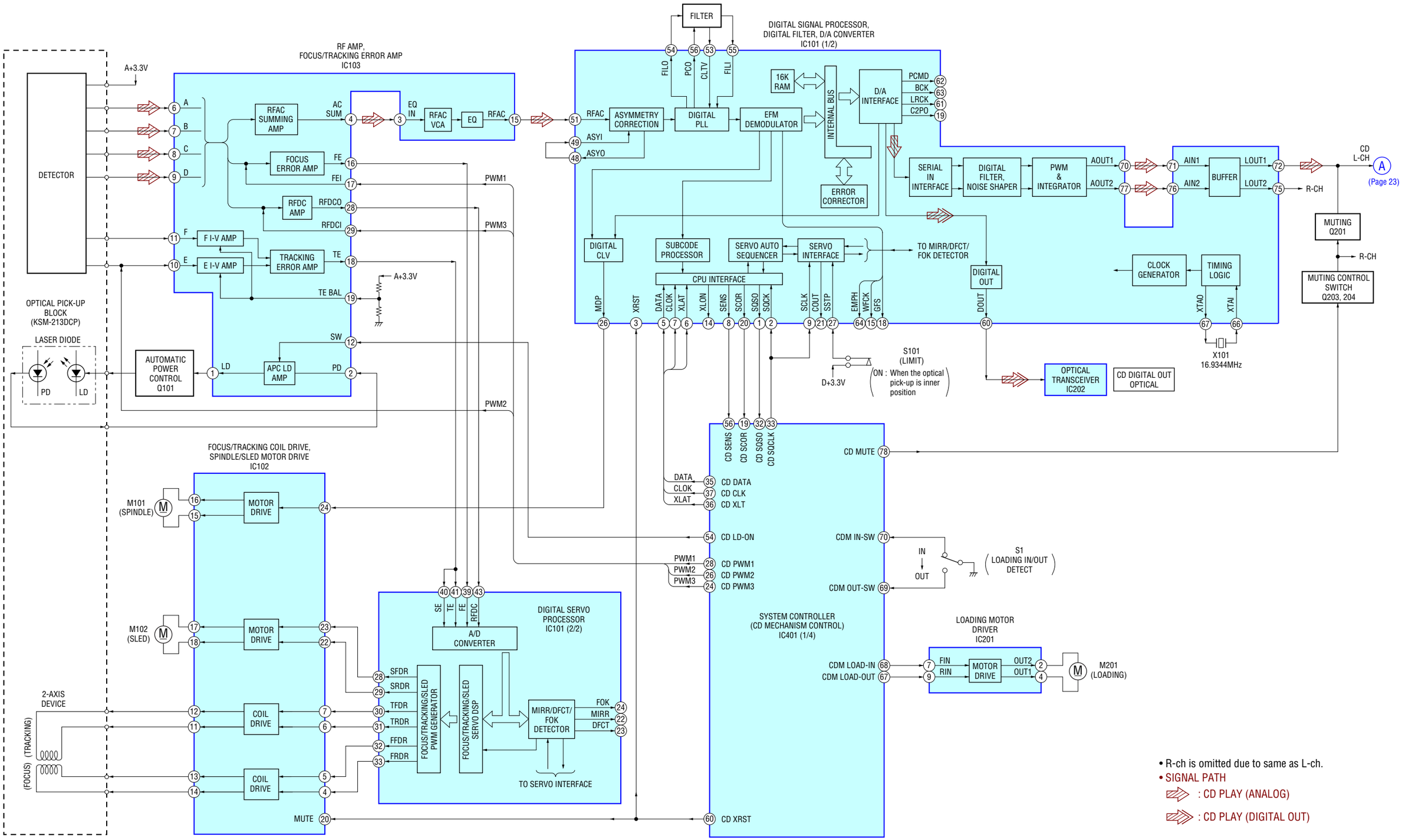
Checking Location:

– BD BOARD (Conductor Side) –



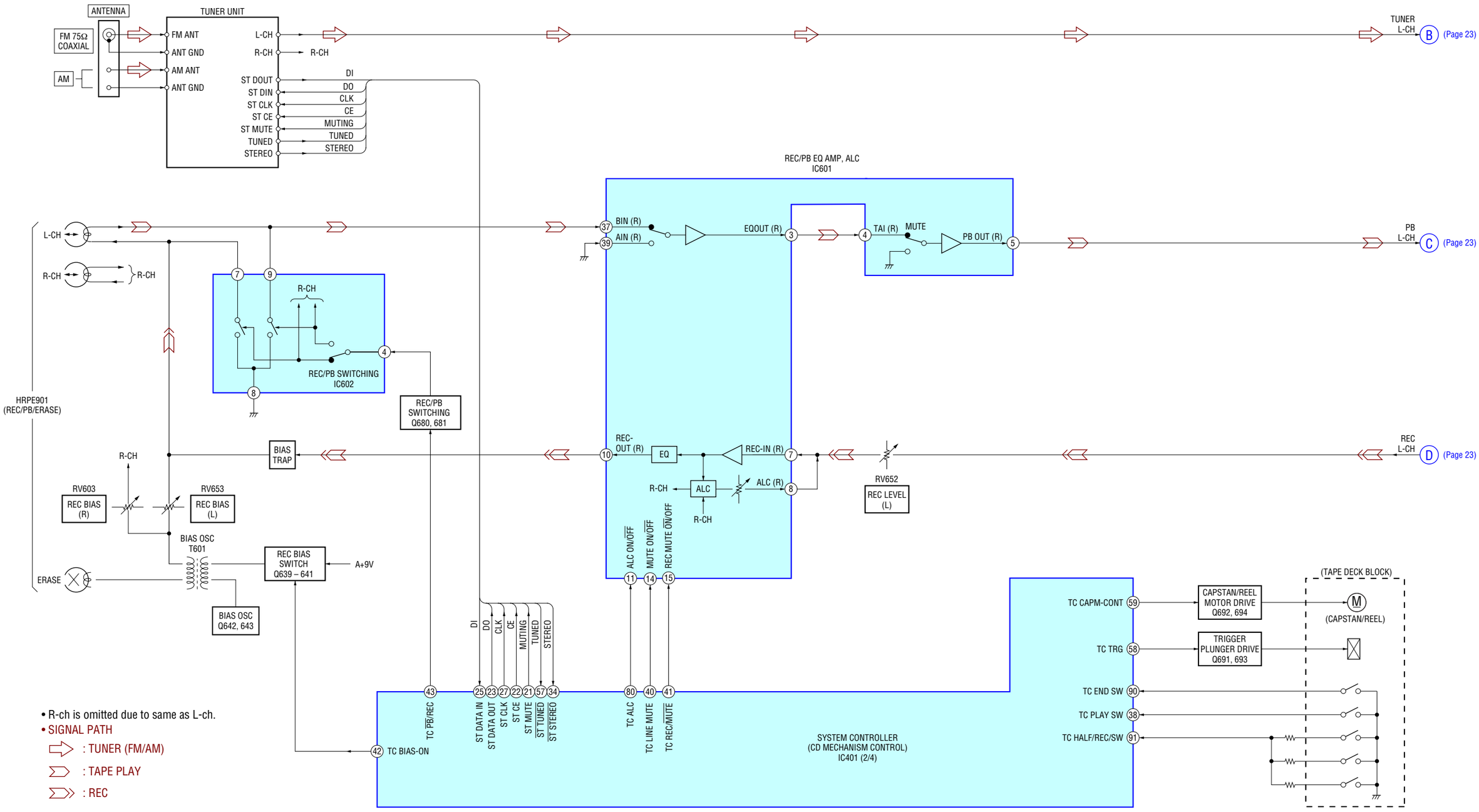
SECTION 6
DIAGRAMS

6-1. BLOCK DIAGRAM – CD SERVO Section –



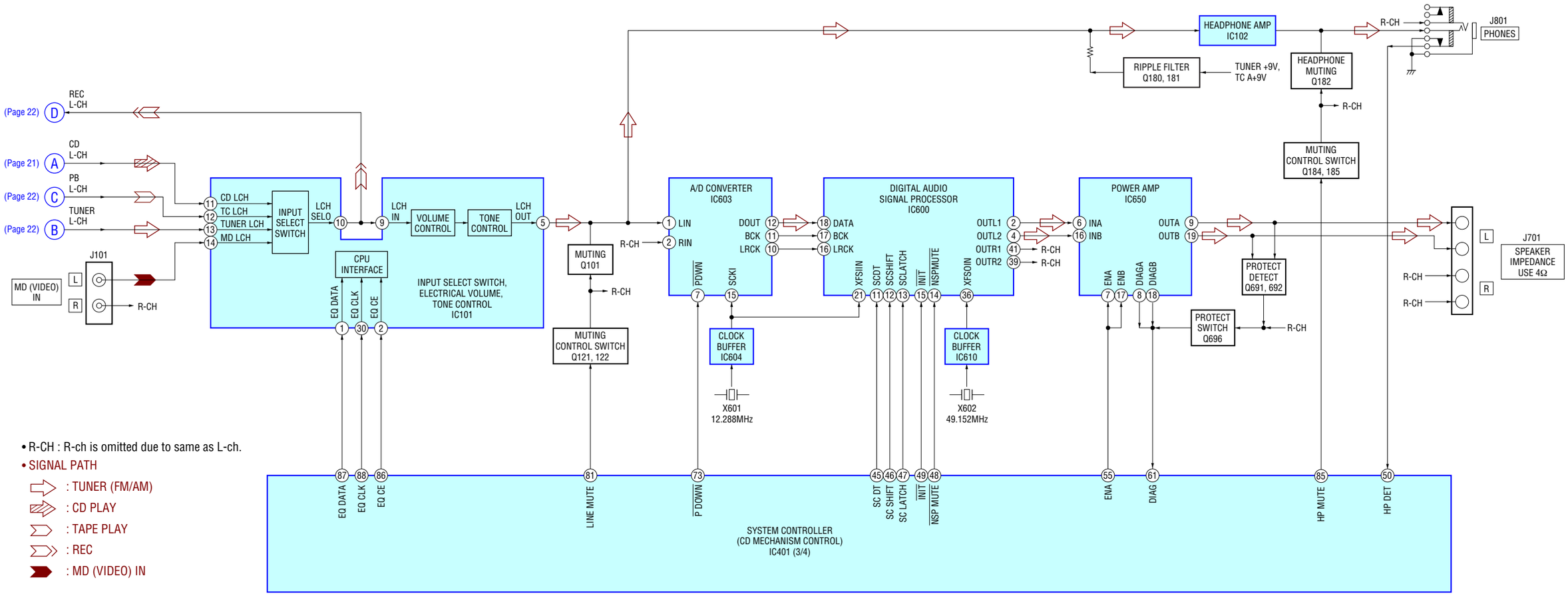
• R-ch is omitted due to same as L-ch.
• SIGNAL PATH
: CD PLAY (ANALOG)
: CD PLAY (DIGITAL OUT)

6-2. BLOCK DIAGRAM – TUNER/TAPE DECK Section –



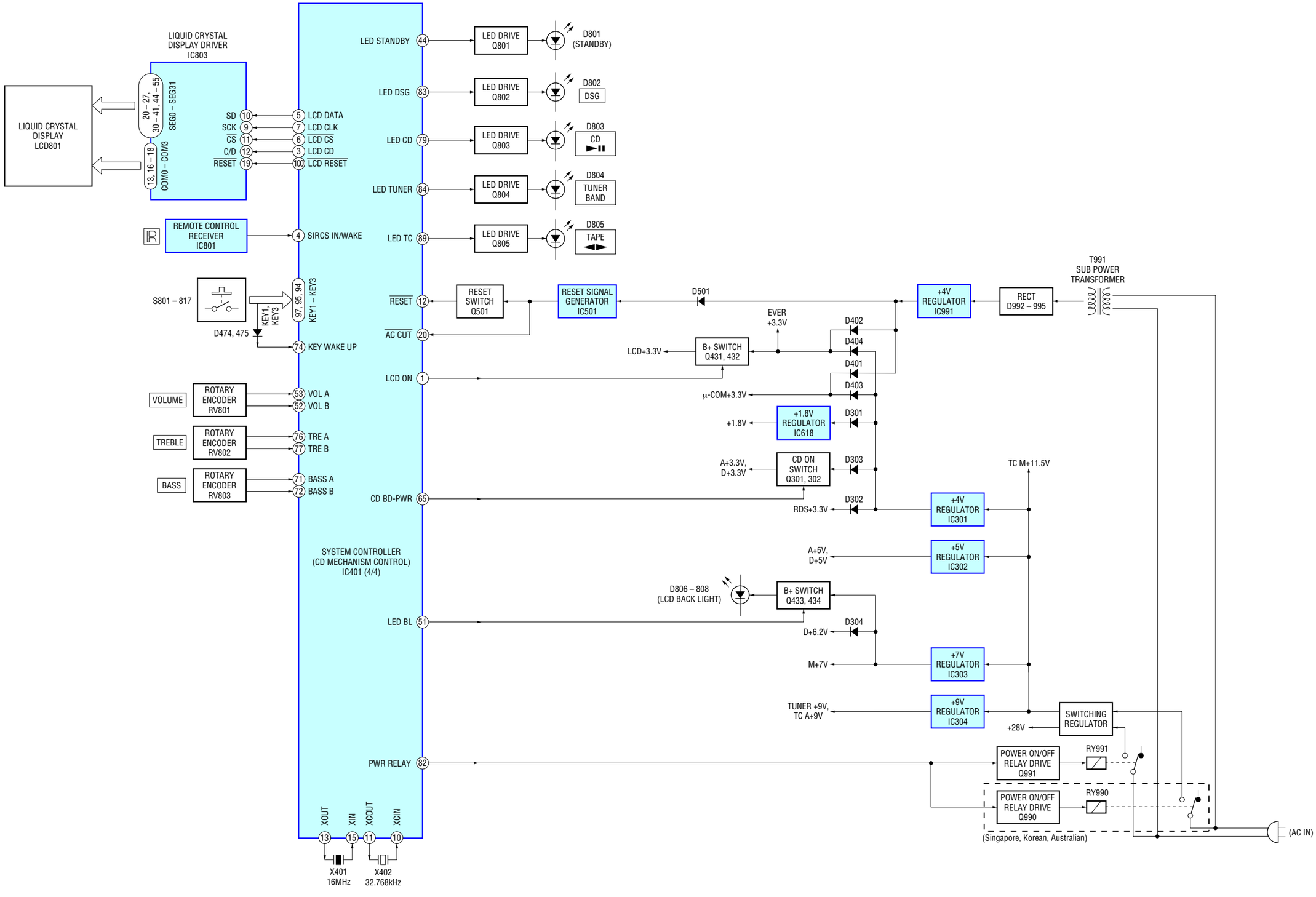
- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : TUNER (FM/AM)
  - : TAPE PLAY
  - : REC

6-3. BLOCK DIAGRAM – MAIN Section –



- R-CH : R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : TUNER (FM/AM)
  - : CD PLAY
  - : TAPE PLAY
  - : REC
  - : MD (VIDEO) IN

6-4. BLOCK DIAGRAM – DISPLAY/POWER SUPPLY Section –



6-5. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

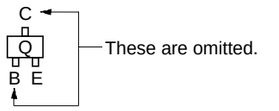
Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ⊡← : indicates side identified with part number.
- △ : internal component.
- ▬ : Pattern from the side which enables seeing.

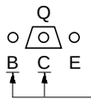
(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

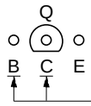
- Indication of transistor.



These are omitted.



These are omitted.



These are omitted.

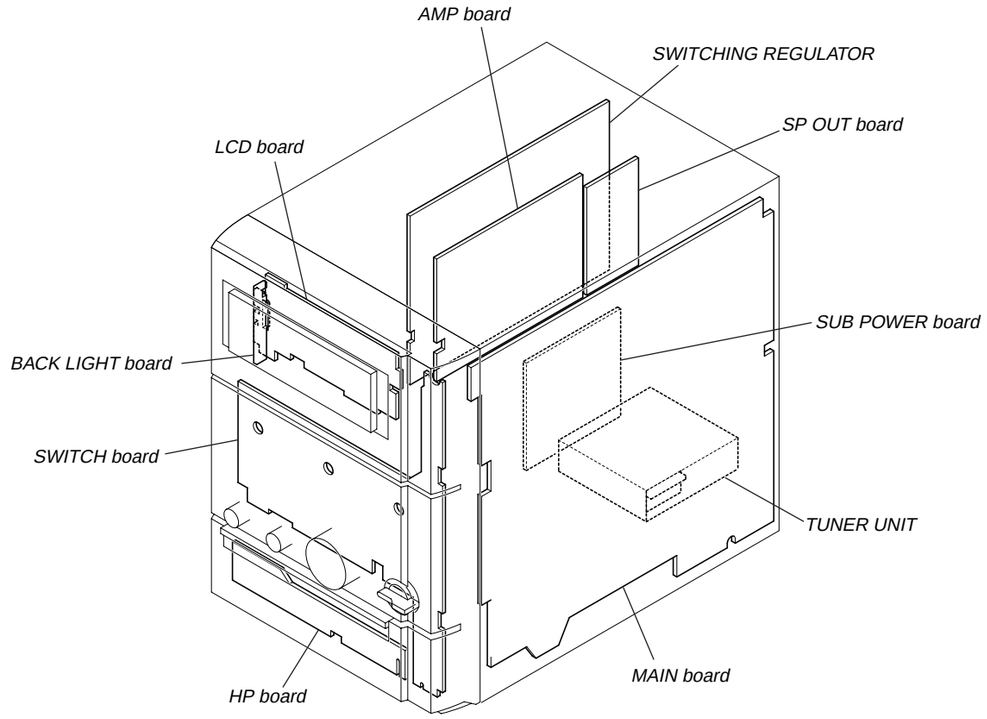
Note on Schematic Diagram:

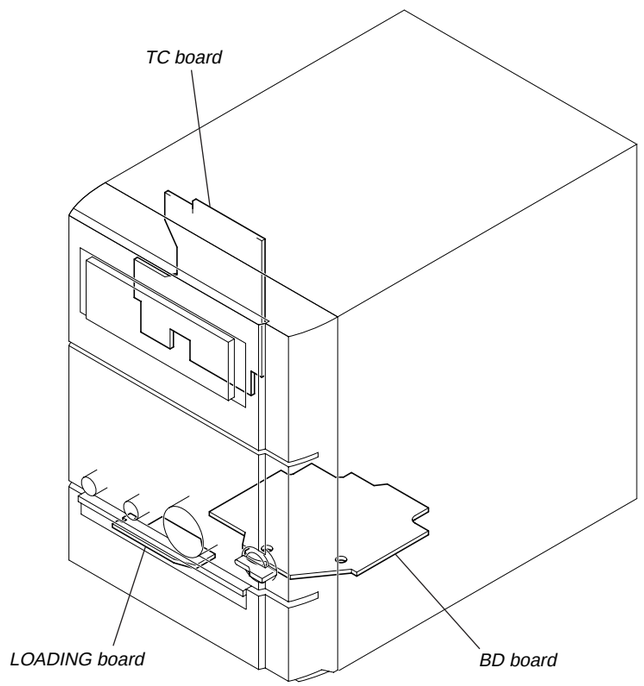
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  - no mark : TUNER (FM/AM)
  - ( ) : CD PLAY
  - [ ] : TAPE PLAY
  - 〈〈 〉〉 : REC
  - ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - : TUNER (FM/AM)
  - : CD PLAY (ANALOG)
  - : CD PLAY (DIGITAL OUT)
  - : TAPE PLAY
  - : REC
  - : MD (VIDEO) IN
- Abbreviation
  - AUS : Australian model
  - CND : Canadian model
  - KR : Korean model
  - SP : Singapore model

- **Circuit Boards Location**

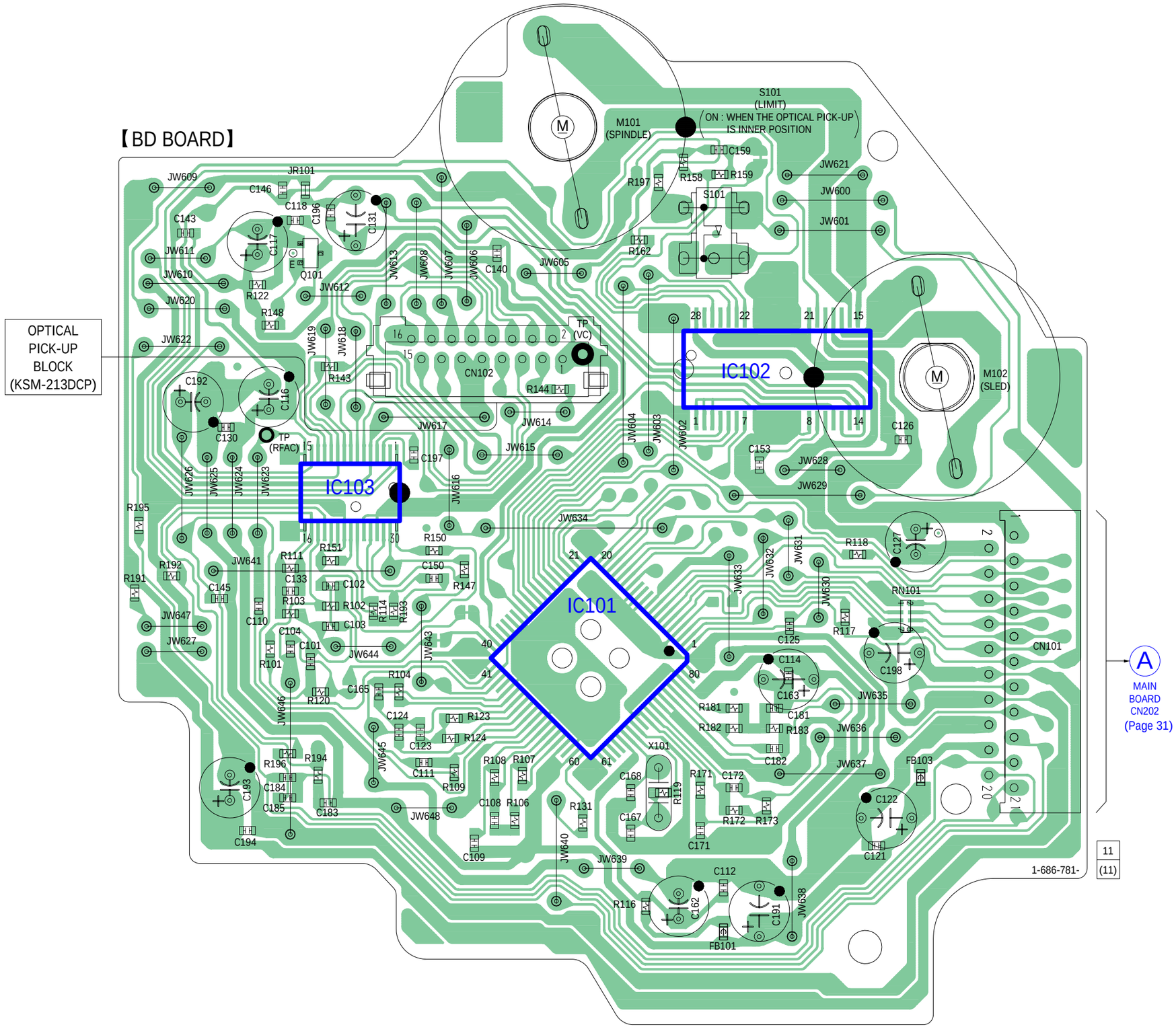




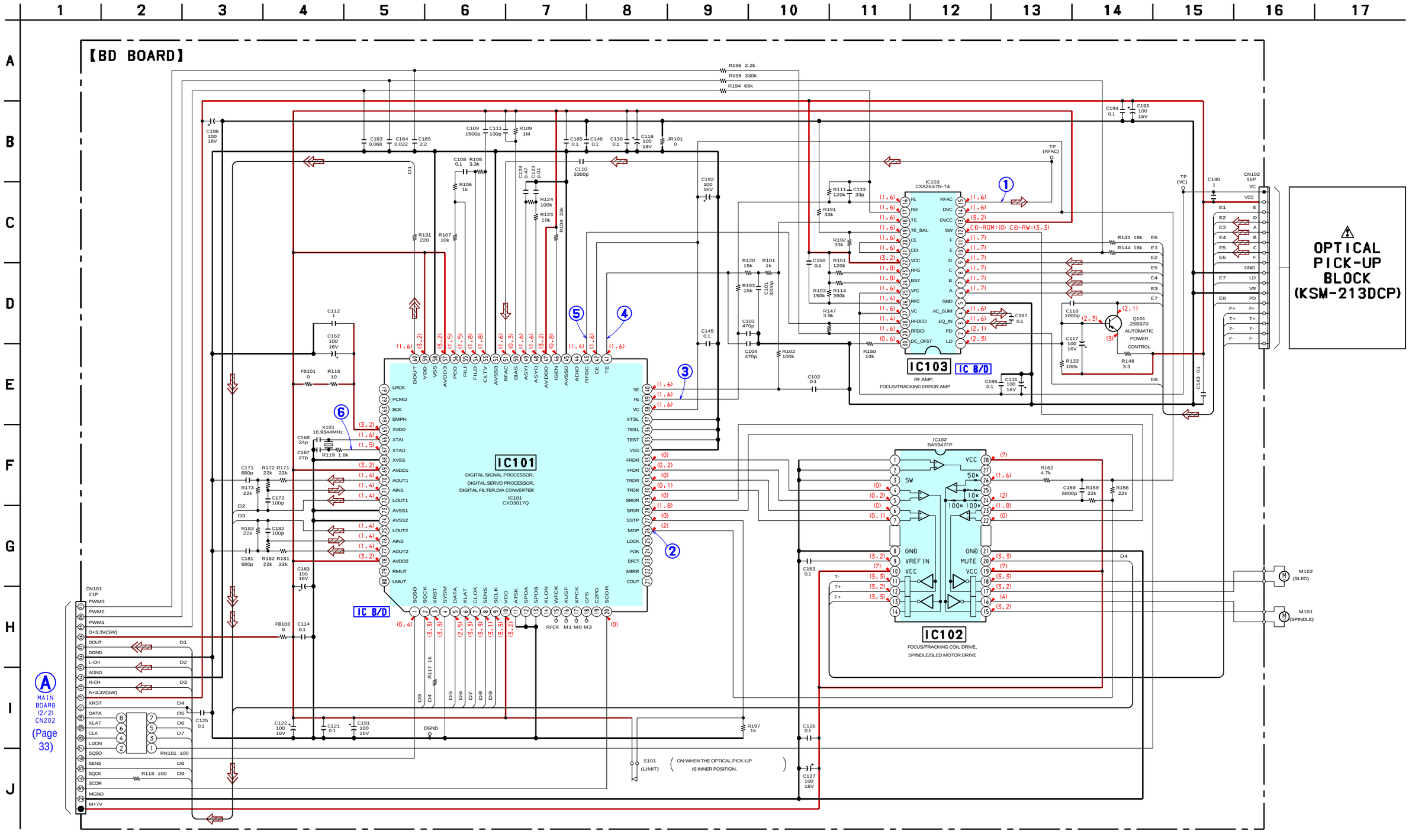
6-6. PRINTED WIRING BOARD – BD Board –

• See page 25 for Circuit Boards Location.

:Uses unleaded solder.



6-7. SCHEMATIC DIAGRAM – BD Board – • See page 30 for Waveforms. • See page 40 for IC Block Diagrams.

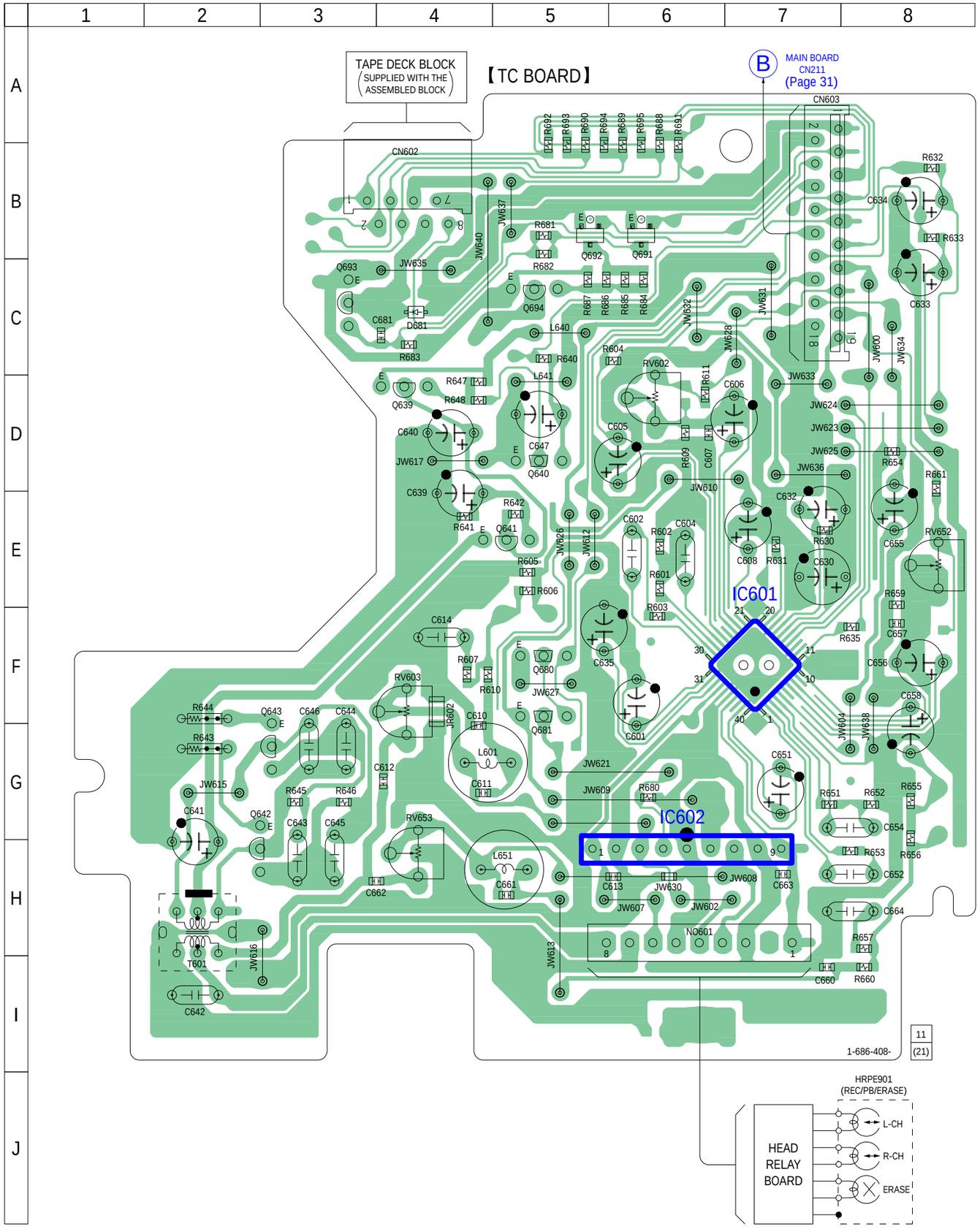


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

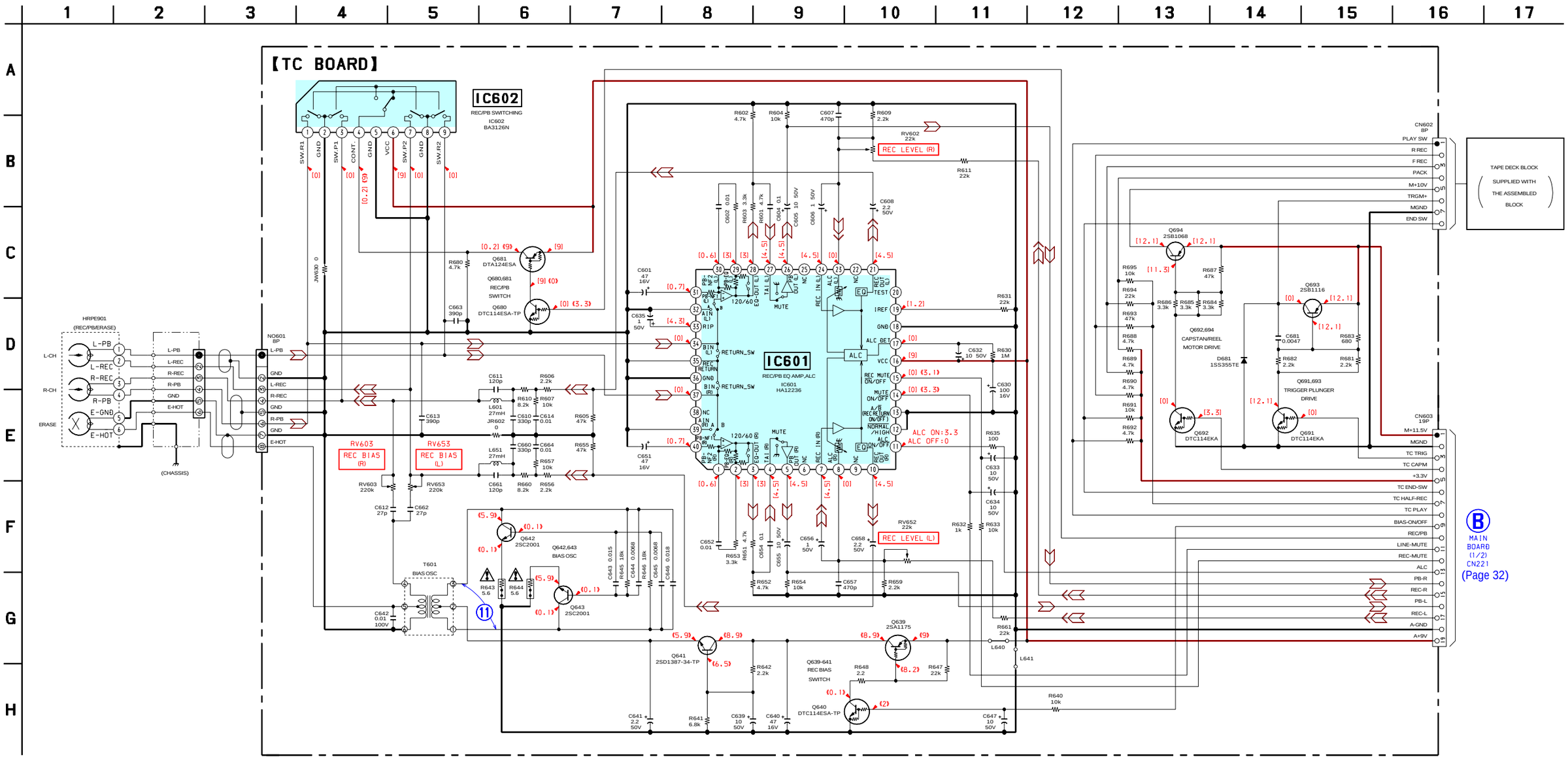
6-8. PRINTED WIRING BOARD – TC Board – • See page 25 for Circuit Boards Location. :Uses unleaded solder.

- **Semiconductor Location**

Ref. No.	Location
D681	C-4
IC601	F-7
IC602	H-6
Q639	D-4
Q640	D-5
Q641	E-5
Q642	H-2
Q643	G-3
Q680	F-5
Q681	F-5
Q691	B-6
Q692	B-5
Q693	C-3
Q694	C-5



6-9. SCHEMATIC DIAGRAM – TC Board – • See page 30 for Waveform.

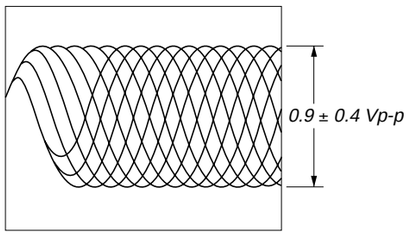


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

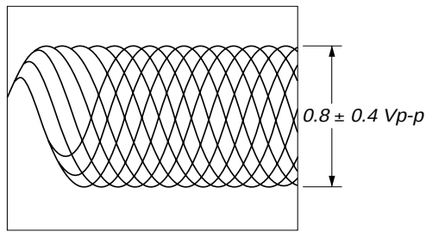
• **Waveforms**

– BD Board –

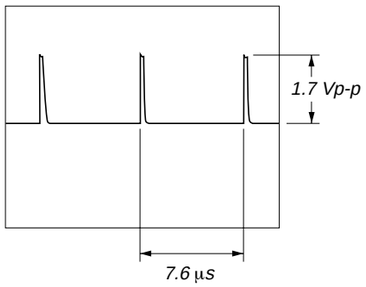
❶ IC103 ⑮ (RFAC) (CD play mode)



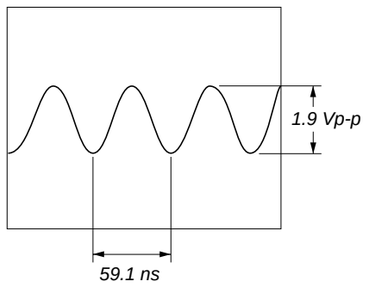
❺ IC101 ㊸ (RFDC) (CD play mode)



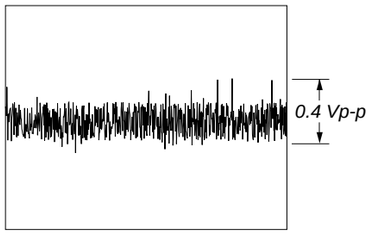
❷ IC101 ㉖ (MDP) (CD play mode)



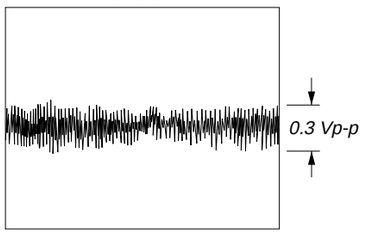
❻ IC101 ㊼ (XTAO)



❸ IC101 ㊴ (FE) (CD play mode)

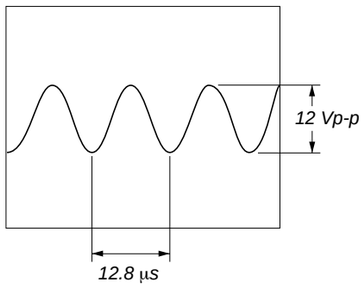


❹ IC101 ㊶ (TE) (CD play mode)



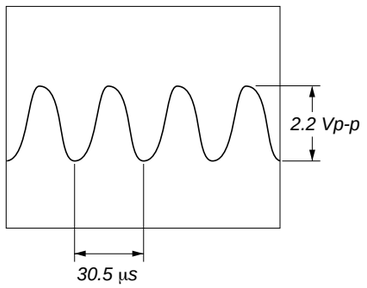
– TC Board –

⓫ Q642, 643 (Collector) (REC mode)

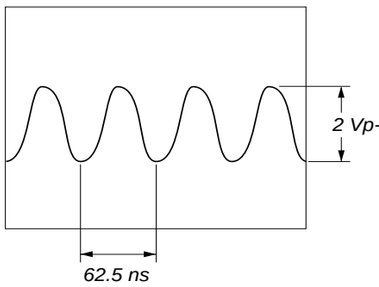


– MAIN Board –

㉑ IC401 ⑪ (XCOUT)

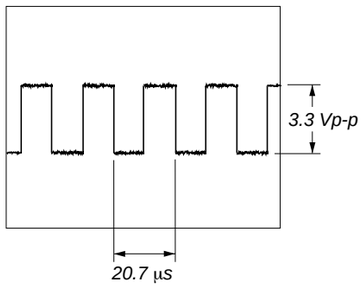


㉒ IC501 ⑬ (X-OUT)

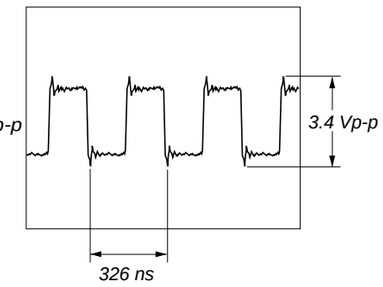


– AMP Board –

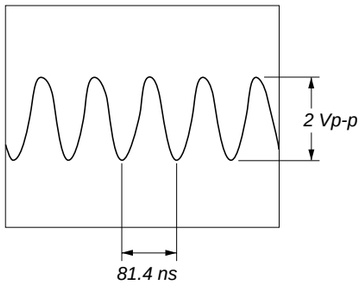
㉛ IC603 ⑩ (LRCK)



㉜ IC603 ⑪ (BCK)

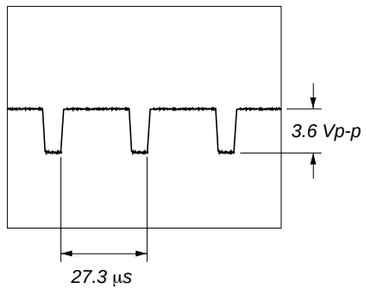


㉝ IC604 ⑥



– LCD Board –

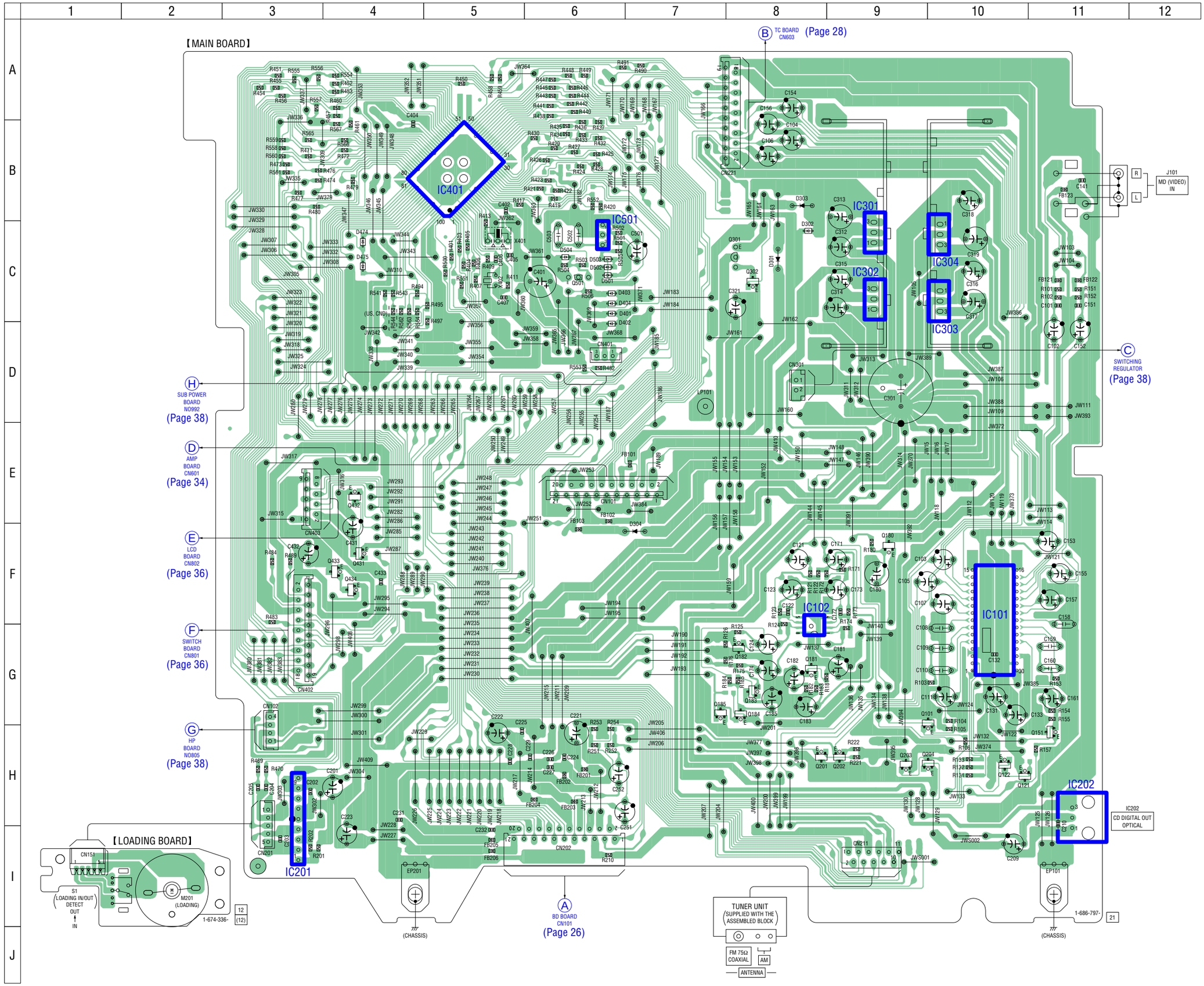
㊶ IC803 ③ (OSC2)



6-10. PRINTED WIRING BOARDS – LOADING/MAIN Boards –

• See page 25 for Circuit Boards Location.

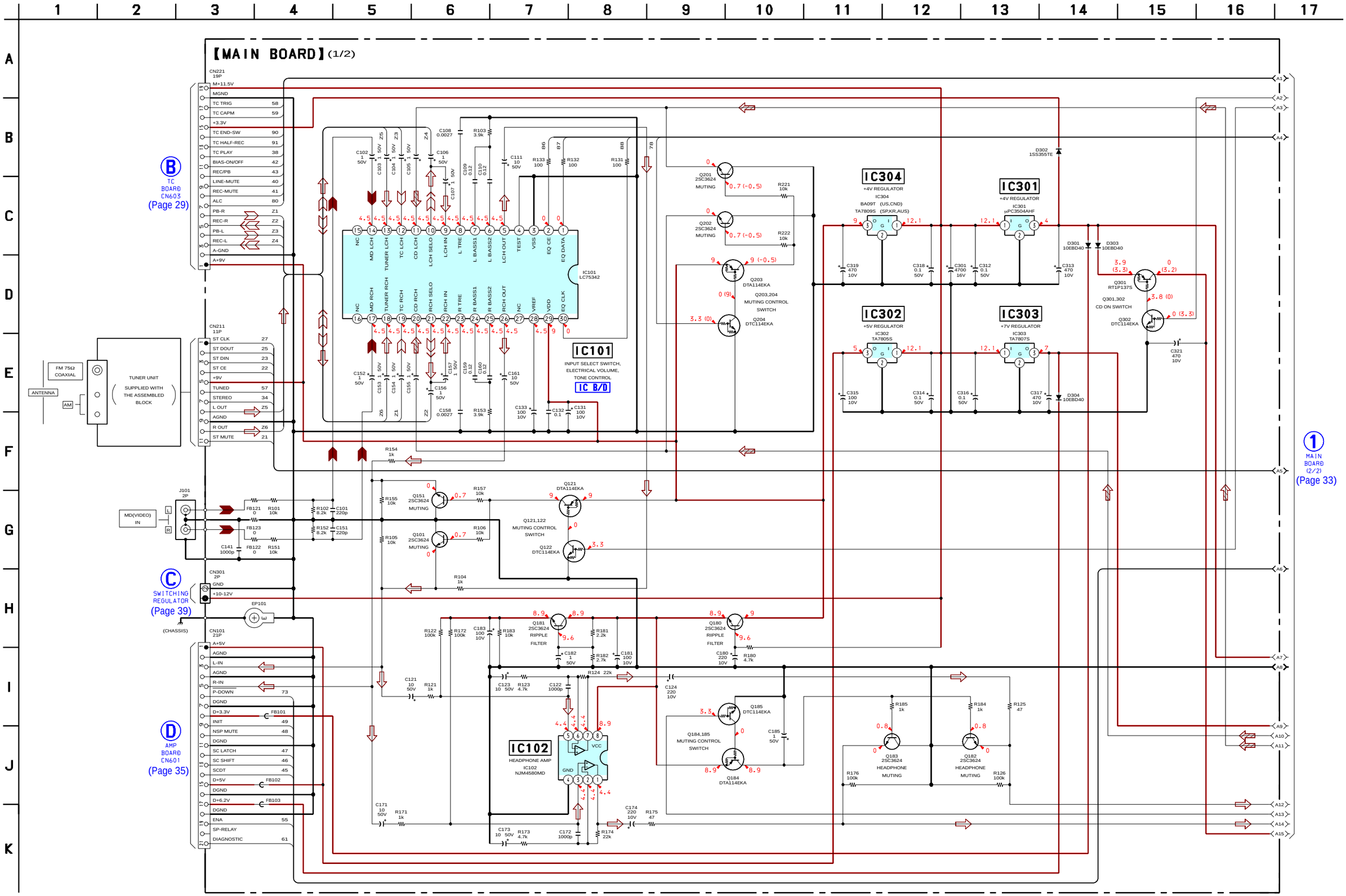
:Uses unleaded solder.



- **Semiconductor Location**

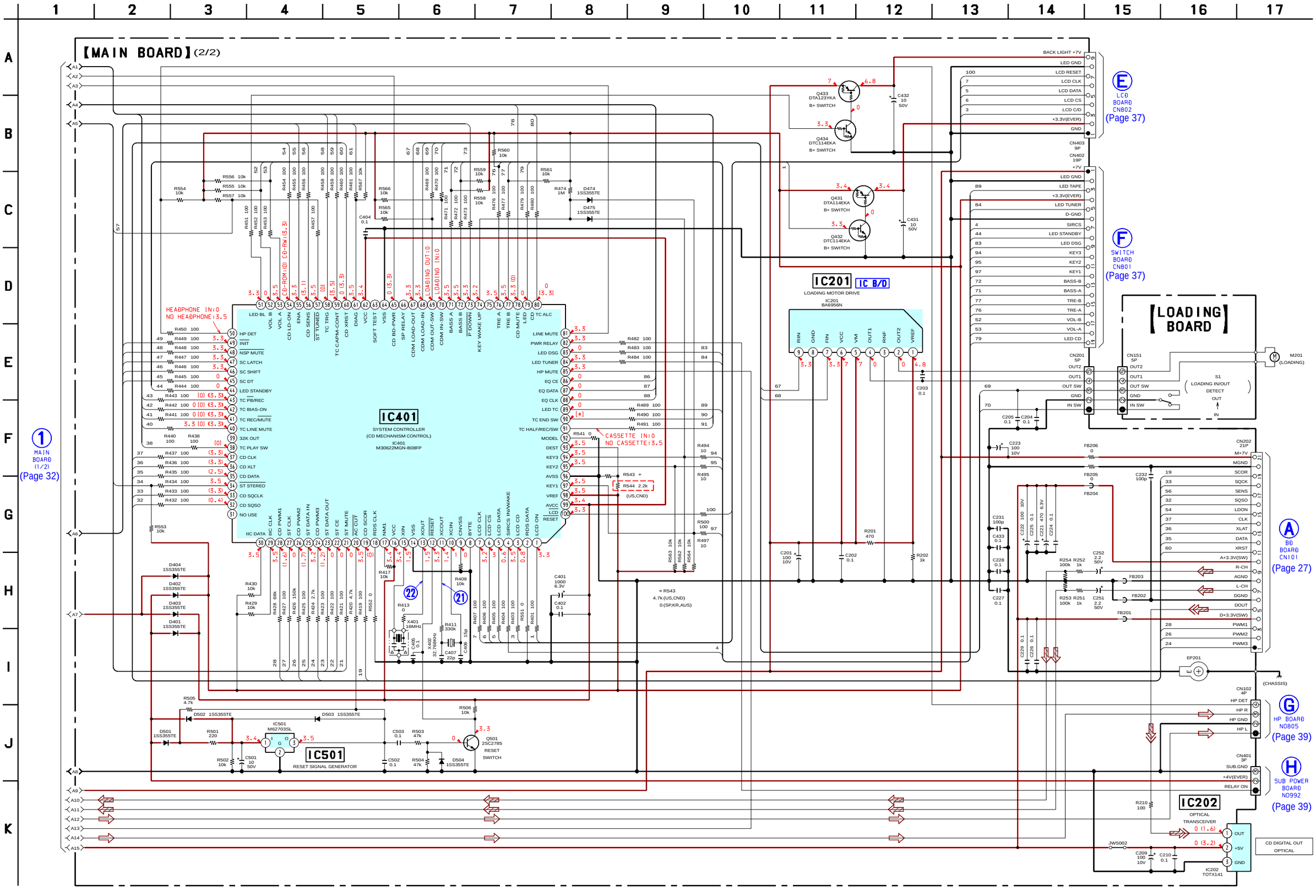
Ref. No.	Location
D301	C-8
D302	C-8
D303	B-8
D304	F-7
D401	C-6
D402	D-6
D403	C-6
D404	C-6
D474	C-4
D475	C-4
D501	C-6
D502	C-6
D503	C-6
D504	C-6
IC101	F-10
IC102	F-8
IC201	H-3
IC202	H-11
IC301	C-9
IC302	C-9
IC303	C-10
IC304	C-10
IC401	B-5
IC501	C-6
Q101	G-10
Q121	H-10
Q122	H-10
Q151	H-11
Q180	F-9
Q181	G-8
Q182	G-8
Q183	G-8
Q184	G-8
Q185	G-7
Q201	H-8
Q202	H-9
Q203	H-9
Q204	H-10
Q301	C-8
Q302	C-8
Q431	F-4
Q432	E-4
Q433	F-4
Q434	F-4
Q501	C-6

6-11. SCHEMATIC DIAGRAM – MAIN Board (1/2) – • See page 40 for IC Block Diagram.



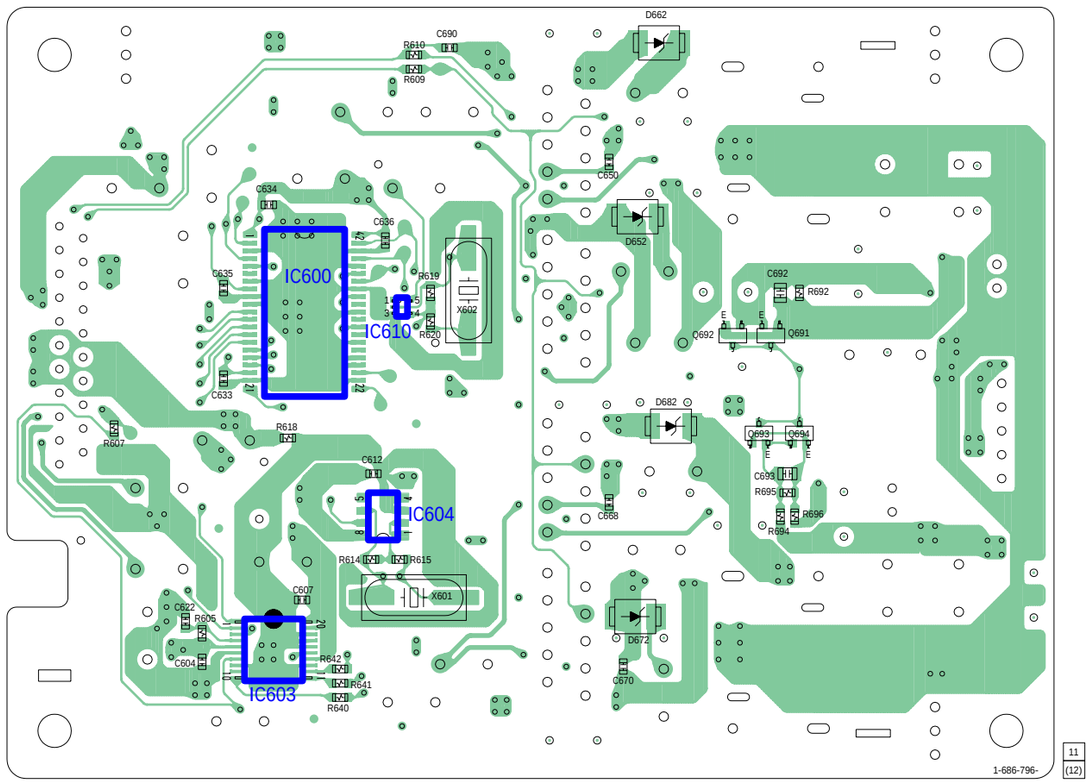
6-12. SCHEMATIC DIAGRAM – LOADING/MAIN (2/2) Boards –

• See page 30 for Waveforms. • See page 40 for IC Block Diagram.

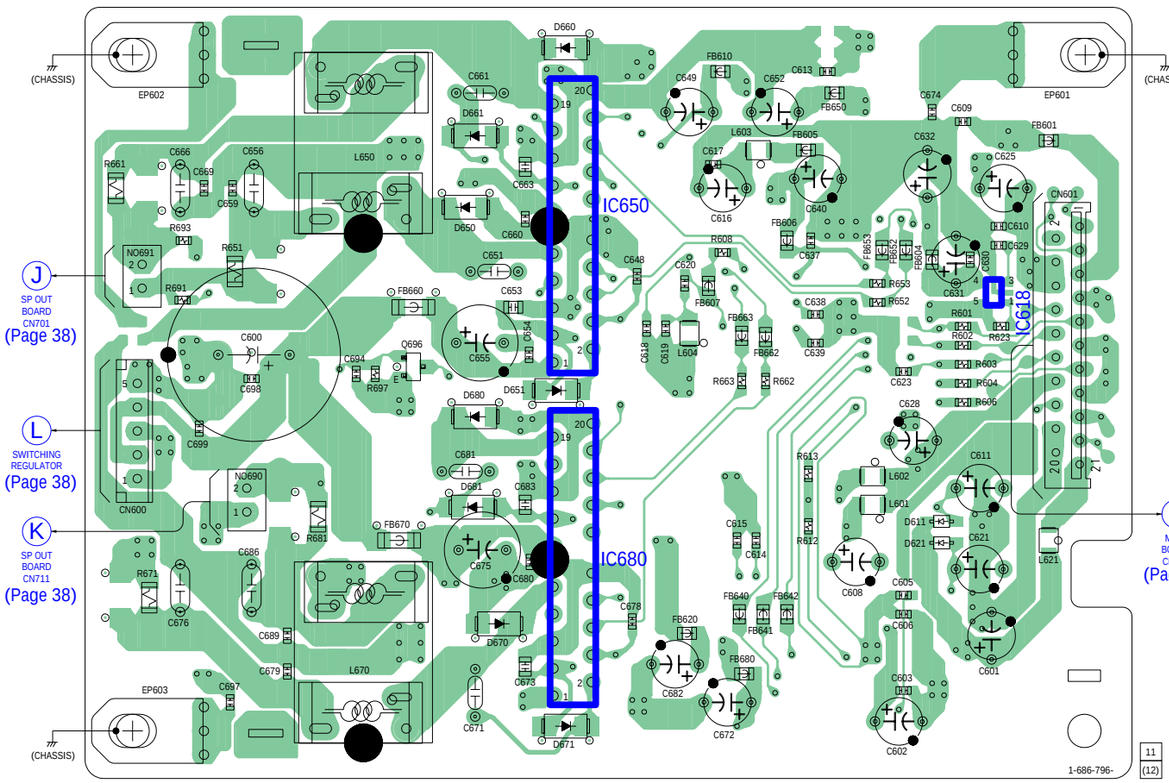


6-13. PRINTED WIRING BOARD – AMP Board – • See page 25 for Circuit Boards Location. :Uses unleaded solder.

【AMP BOARD】(COMPONENT SIDE)



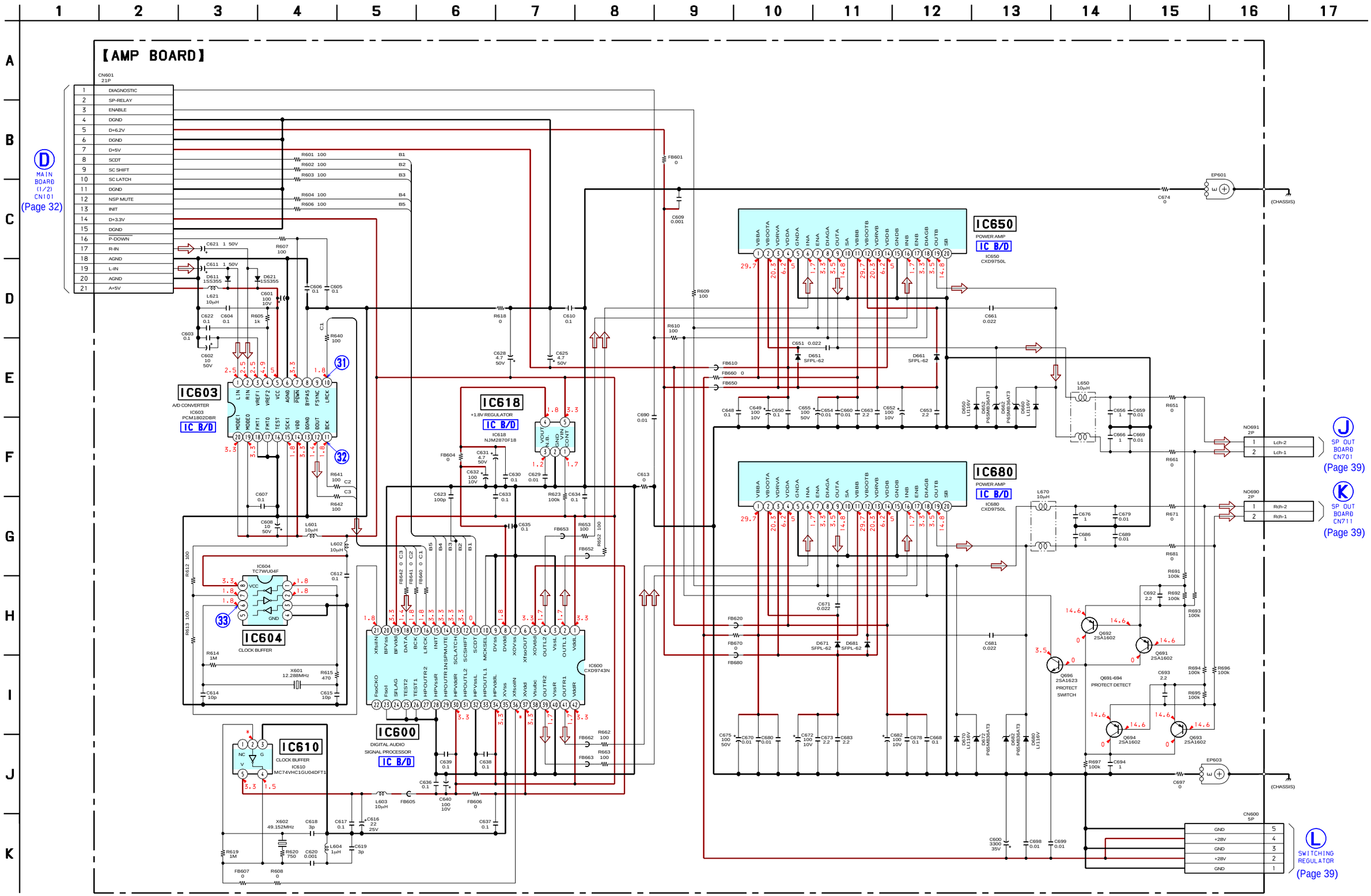
【AMP BOARD】(CONDUCTOR SIDE)



- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D611	E-18	IC600	D-3
D621	F-18	IC603	F-3
D650	C-14	IC604	E-4
D651	D-15	IC610	D-4
D652	C-6	IC618	C-18
D660	A-15	IC650	C-15
D661	B-14	IC680	F-15
D662	A-6		
D670	F-14	Q691	D-7
D671	G-15	Q692	D-7
D672	F-6	Q693	E-7
D680	D-14	Q694	E-8
D681	E-14	Q696	D-14
D682	E-6		

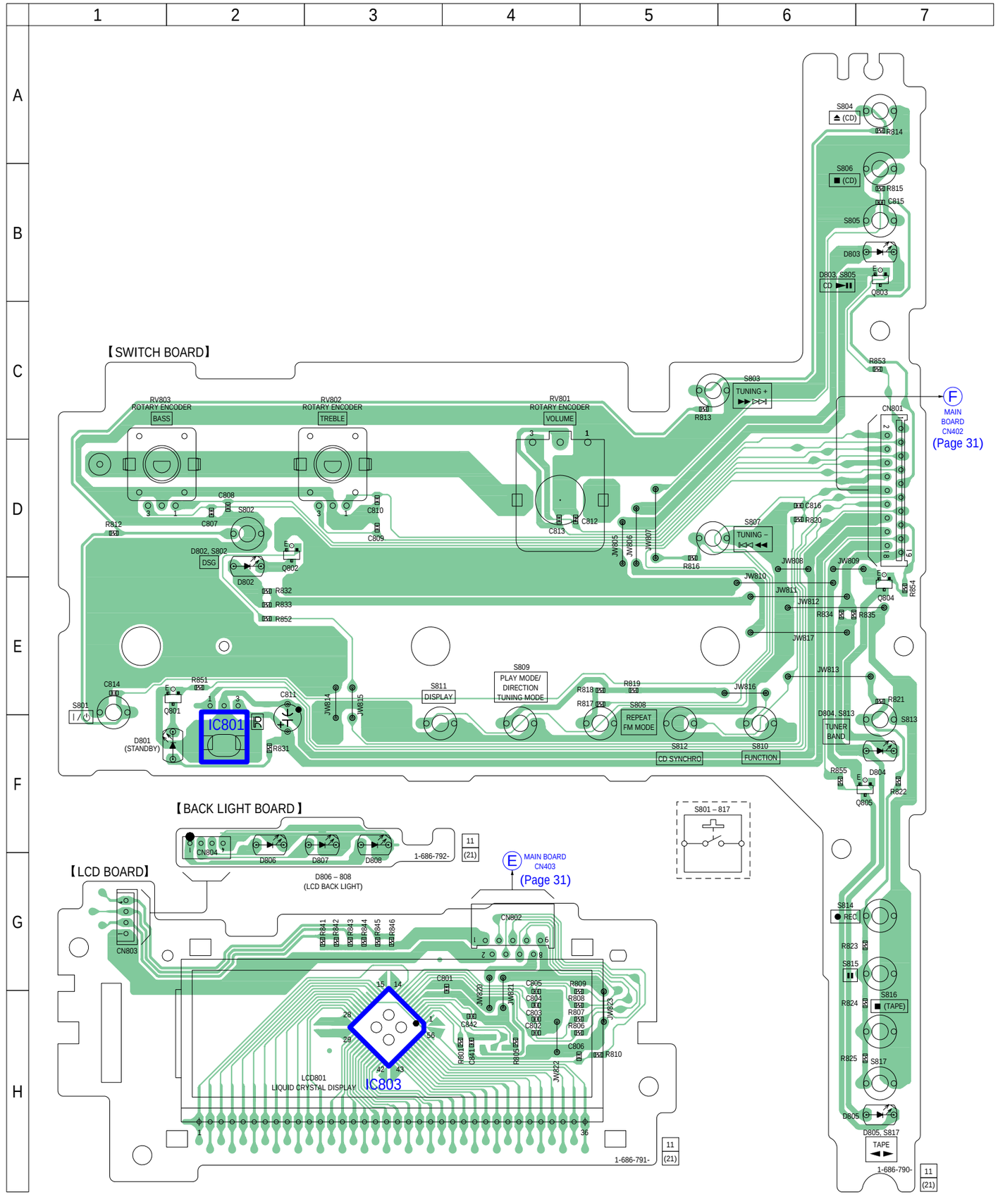
6-14. SCHEMATIC DIAGRAM – AMP Board – • See page 30 for Waveforms. • See page 40 for IC Block Diagrams.



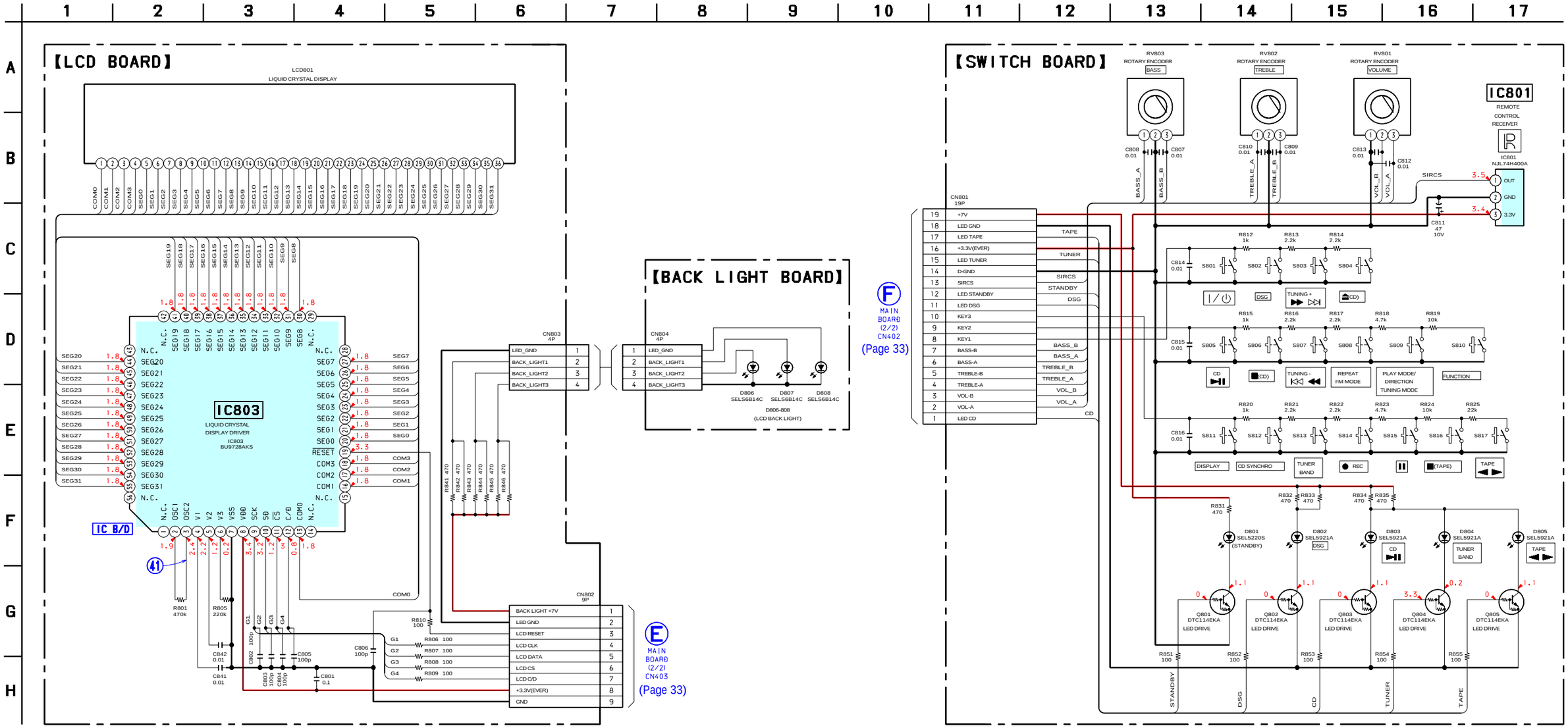
6-15. PRINTED WIRING BOARDS – BACK LIGHT/LCD/SWITCH Boards – • See page 25 for Circuit Boards Location. :Uses unleaded solder.

- **Semiconductor Location**

Ref. No.	Location
D801	F-2
D802	D-2
D803	B-7
D804	F-7
D805	H-7
D806	F-2
D807	F-3
D808	F-3
IC801	F-2
IC803	H-3
Q801	E-2
Q802	D-2
Q803	B-7
Q804	E-7
Q805	F-7



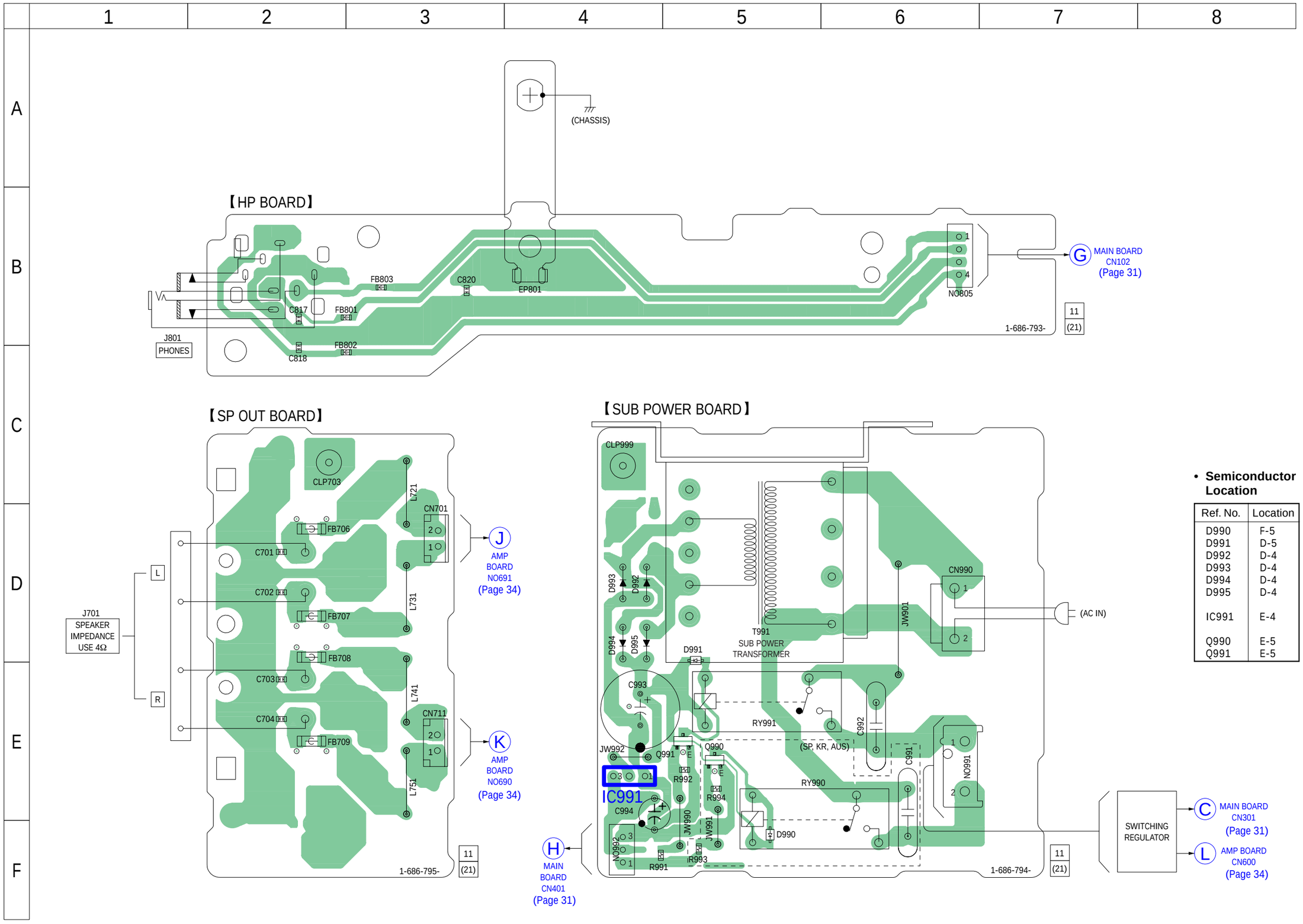
6-16. SCHEMATIC DIAGRAM – BACK LIGHT/LCD/SWITCH Boards – • See page 30 for Waveform. • See page 40 for IC Block Diagram.



6-17. PRINTED WIRING BOARDS – HP/SP OUT/SUB POWER Boards –

• See page 25 for Circuit Boards Location.

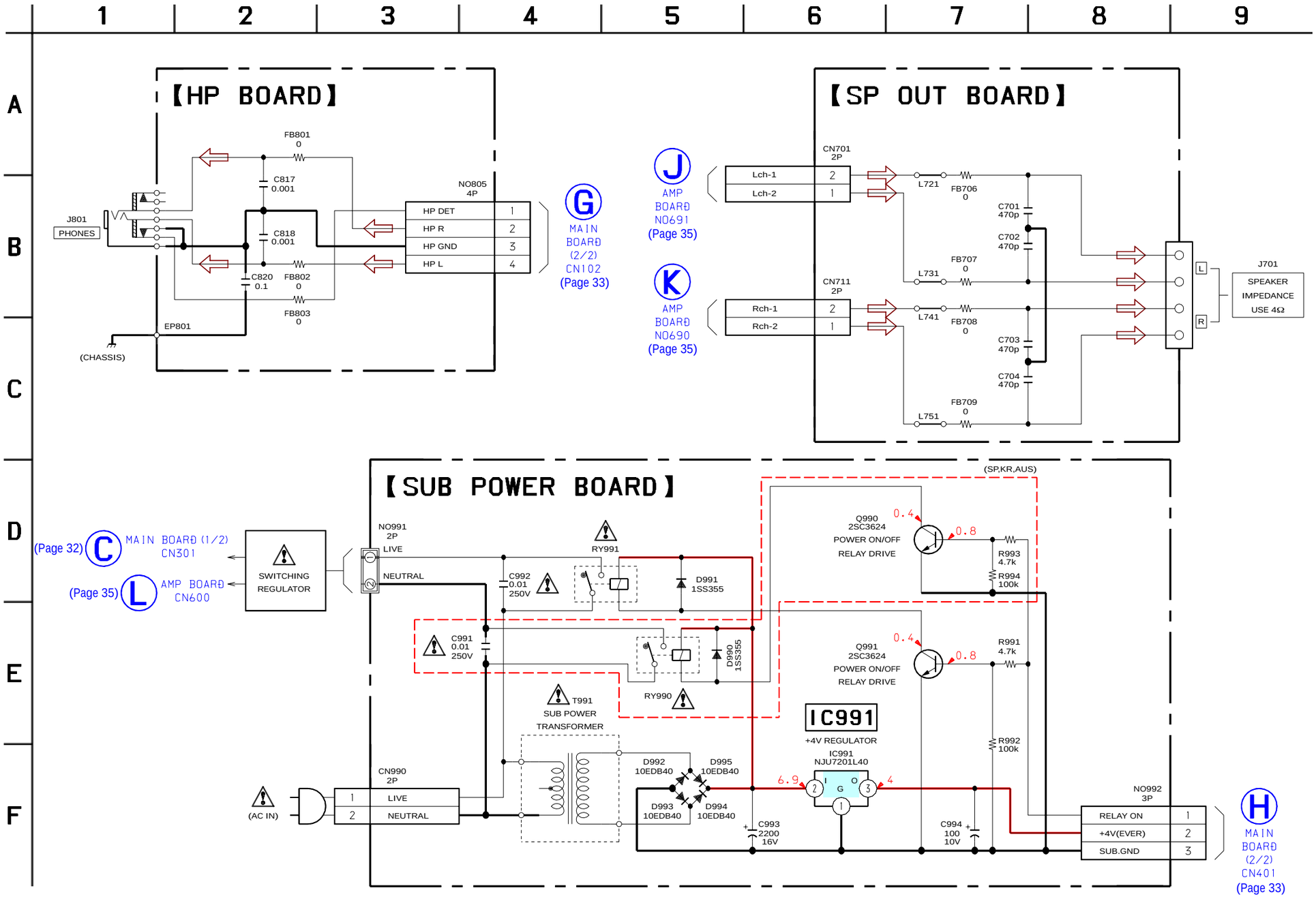
:Uses unleaded solder.



- **Semiconductor Location**

Ref. No.	Location
D990	F-5
D991	D-5
D992	D-4
D993	D-4
D994	D-4
D995	D-4
IC991	E-4
Q990	E-5
Q991	E-5

6-18. SCHEMATIC DIAGRAM – HP/SP OUT/SUB POWER Boards –

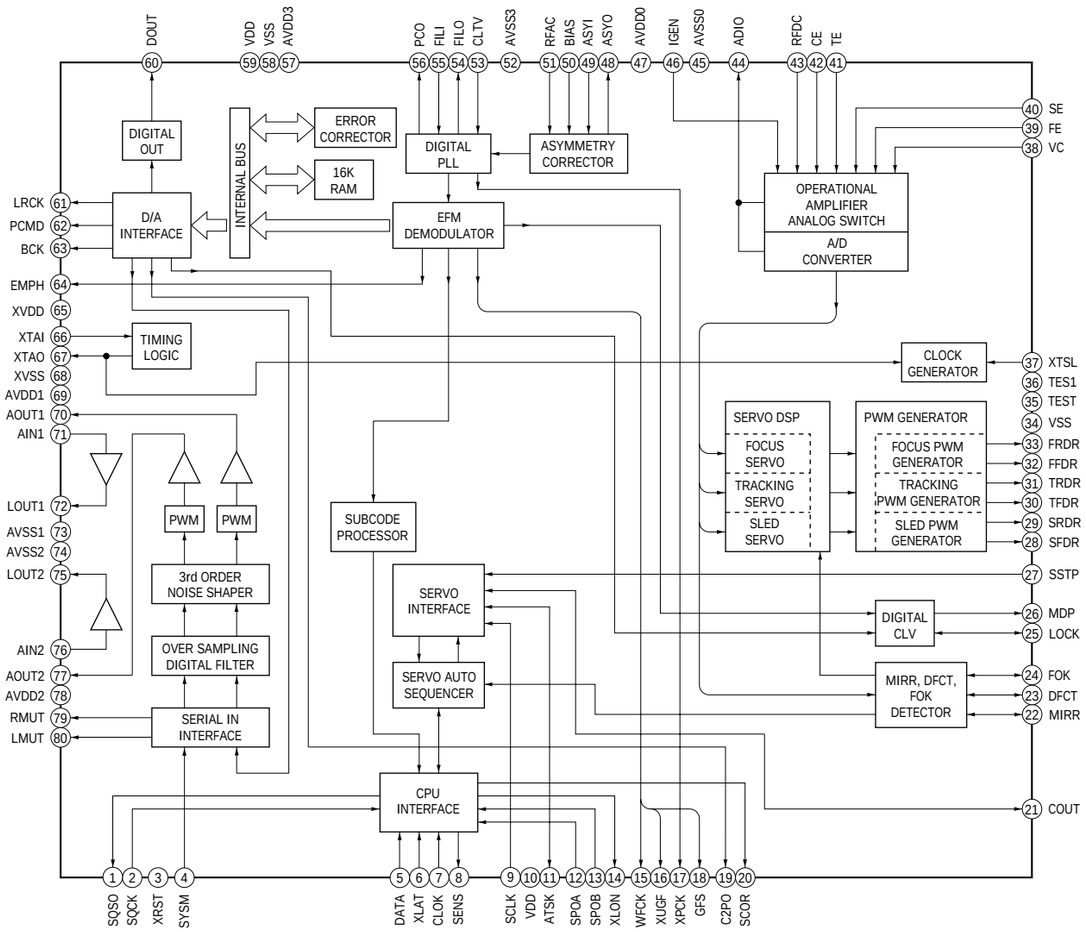


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

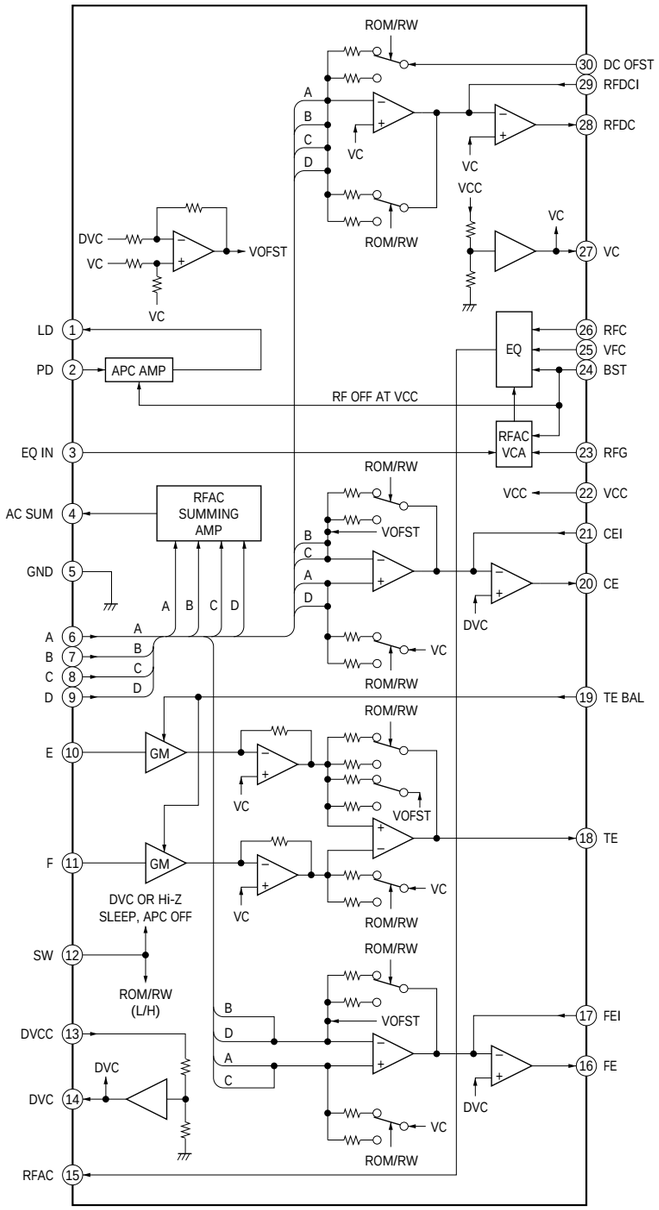
- **IC Block Diagrams**

– BD Board –

IC101 CXD3017Q

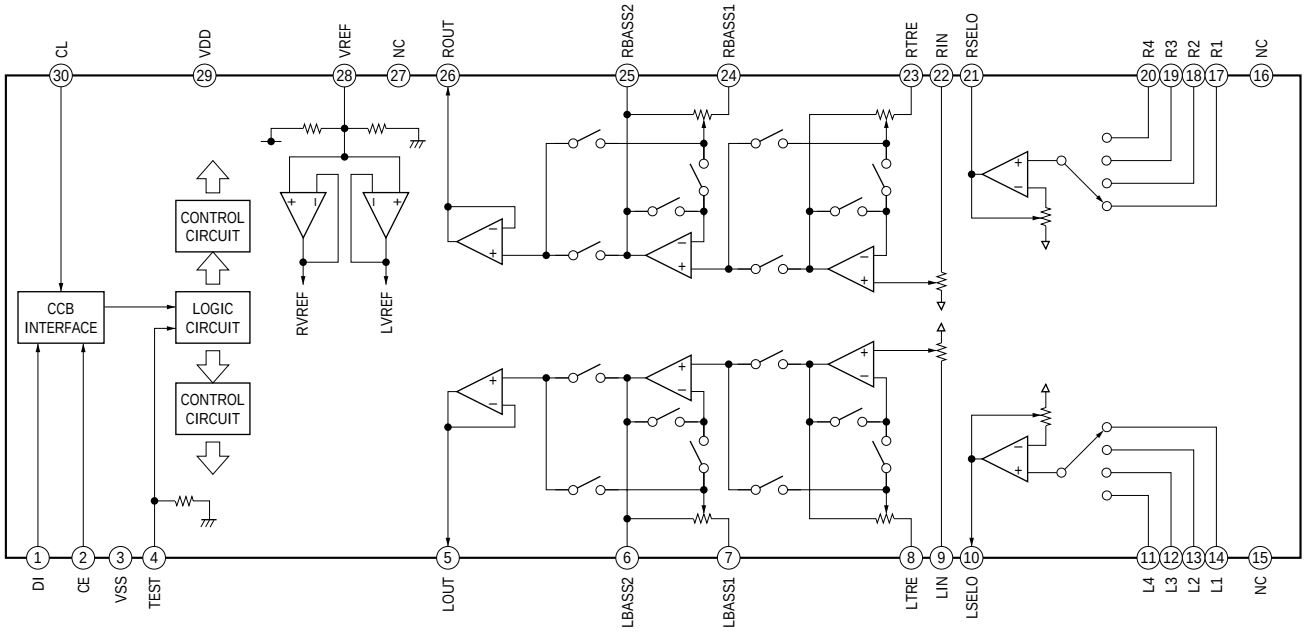


IC103 CXA2647N-T4

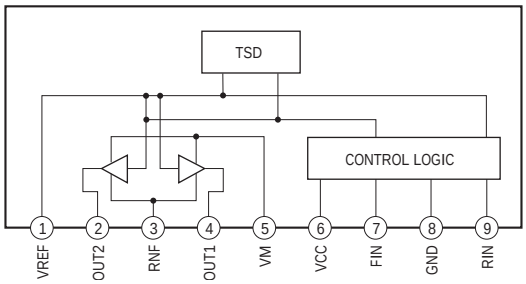


– MAIN Board –

IC101 LC75342

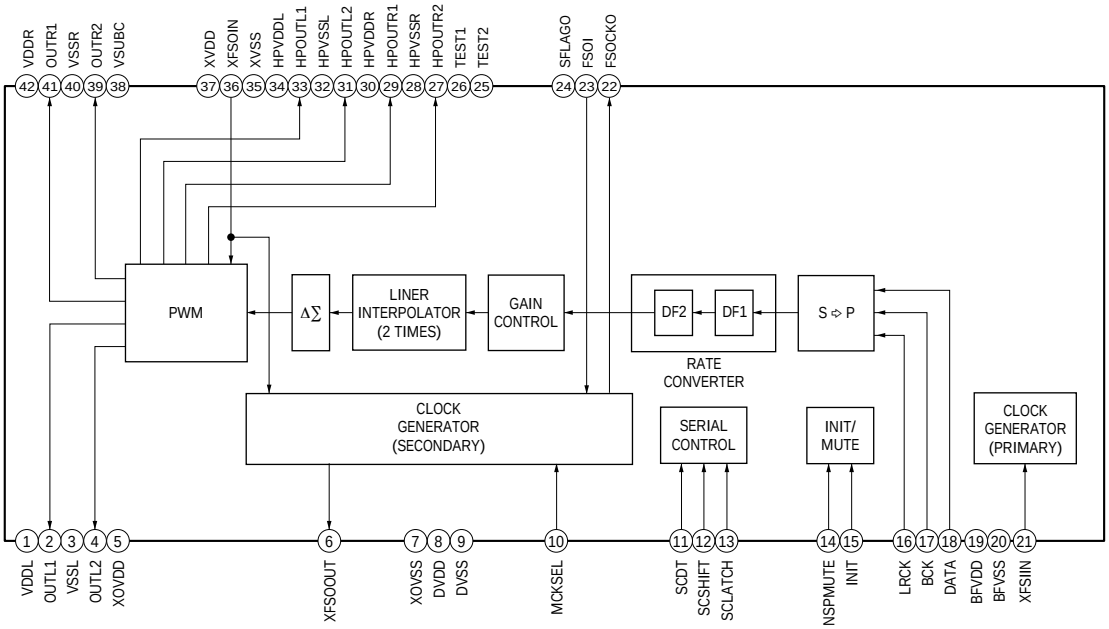


IC201 BA6956AN

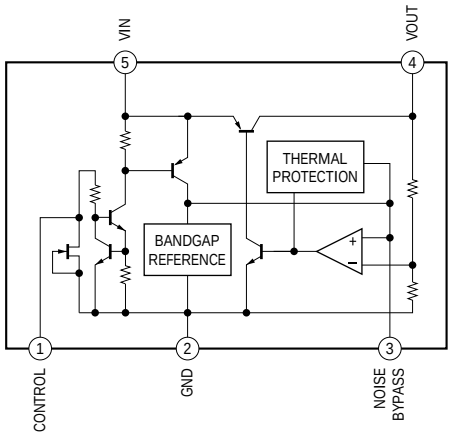


– AMP Board –

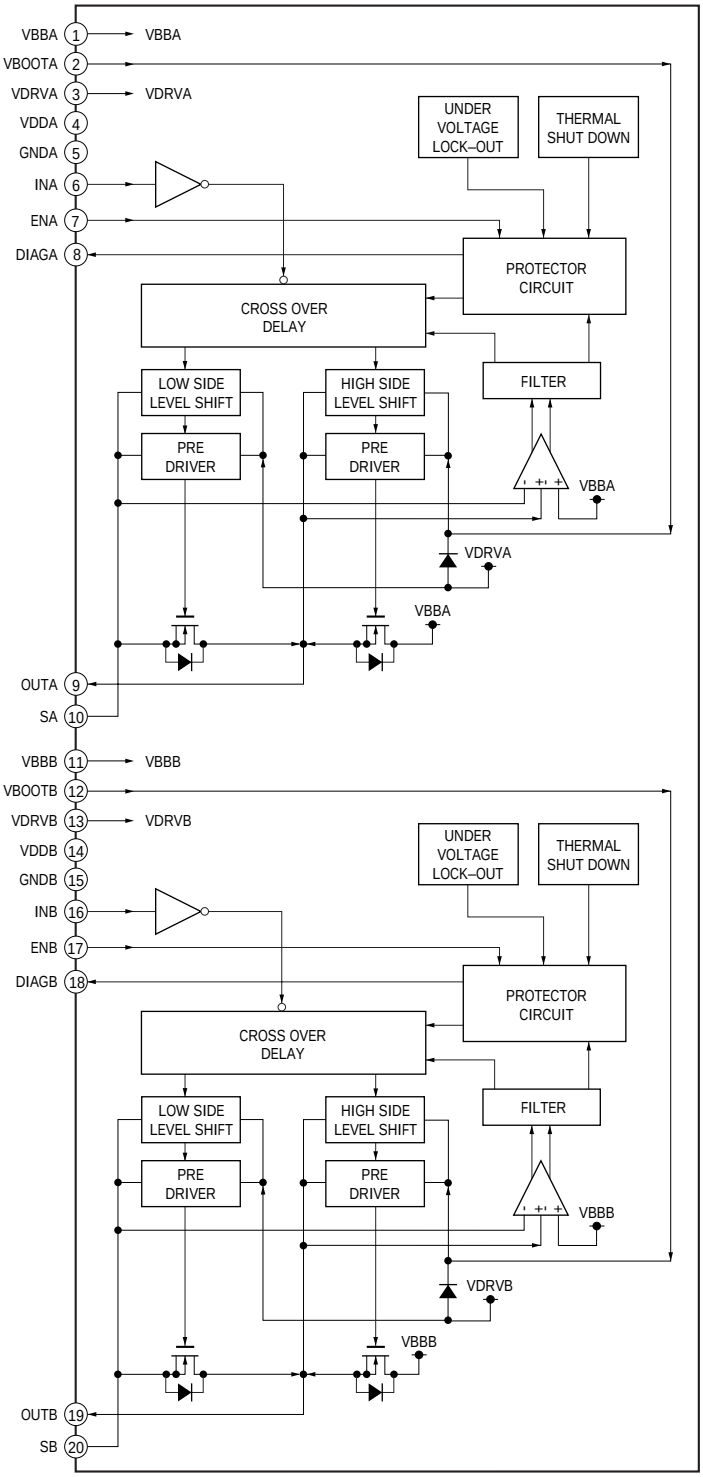
IC600 CXD9743N



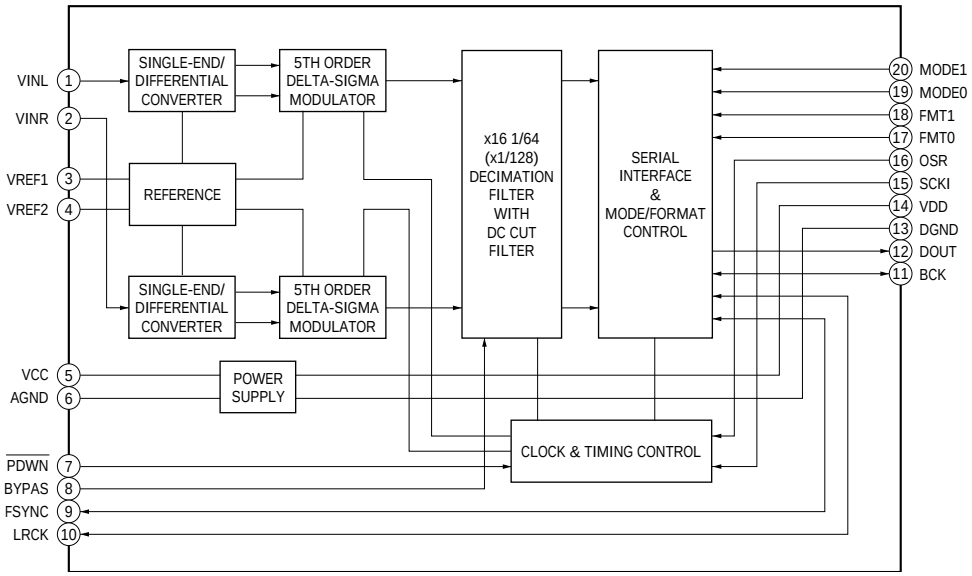
IC618 NJM2870F18 (TE2)



IC650, 680 CXD9750L

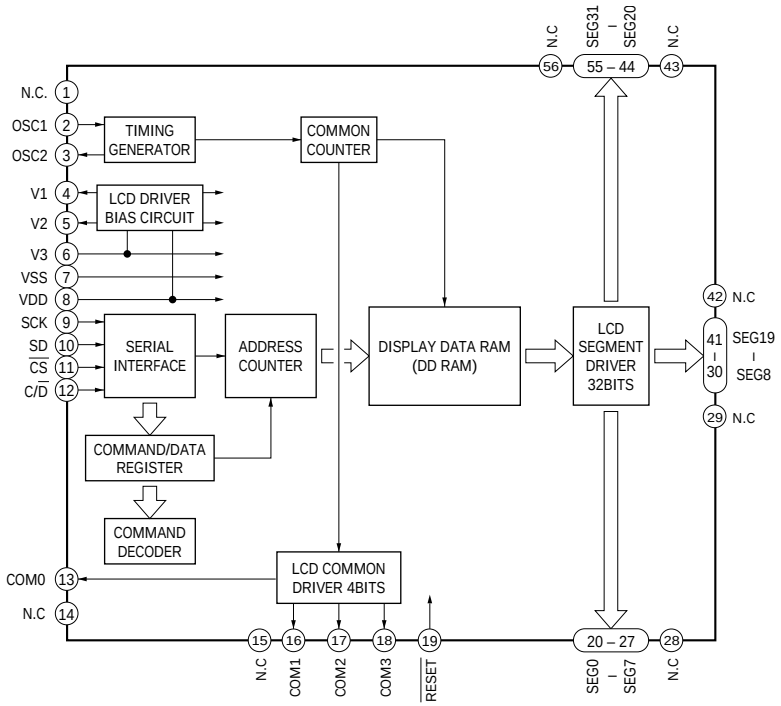


IC603 PCM1802DBR



– LCD Board –

IC803 BU9728AKS



6-19. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC401 M30622MGN-B08FP (SYSTEM CONTROLLER (CD MECHANISM CONTROL))

Pin No.	Pin Name	I/O	Description
1	LCD ON	O	Power on/off control signal output for liquid crystal display "H": power on
2	RDS DATA	I	Serial data input from the RDS decoder Not used
3	LCD CD	O	Signal output for discriminating between command and display data to the liquid crystal display driver "L": display data, "H": command
4	SIRCS IN/WAKE	I	Remote control signal input terminal
5	LCD DATA	O	Serial data output to the liquid crystal display driver
6	$\overline{\text{LCD CS}}$	O	Chip select signal output to the liquid crystal display driver "L" active
7	LCD CLK	O	Serial data transfer clock signal output to the liquid crystal display driver
8	BYTE	—	Not used
9	CNVSS	—	Ground terminal
10	XCIN	I	Sub system clock input terminal (32.768 kHz)
11	XCOUT	O	Sub system clock output terminal (32.768 kHz)
12	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
13	XOUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt input terminal Not used
18	RDS CLK	I	Serial data transfer clock signal input from the RDS decoder Not used
19	CD SCOR	I	Subcode sync (S0+S1) detection signal input from the digital signal processor
20	$\overline{\text{AC CUT}}$	I	AC off detection signal input from the reset signal generator "L": AC cut checked
21	ST MUTE	O	Tuner muting on/off control signal output to the tuner unit "H": muting on
22	ST CE	O	PLL chip enable signal output to the tuner unit
23	ST DATA OUT	O	PLL serial data output to the tuner unit
24	CD PWM3	O	RFDC PWM signal output to the RF amplifier
25	ST DATA IN	I	PLL serial data input from the tuner unit
26	CD PWM2	O	PWM signal output to the RF amplifier
27	ST CLK	O	PLL serial data transfer clock signal output to the tuner unit
28	CD PWM1	O	Focus servo drive PWM signal output to the RF amplifier
29	IIC CLK	I/O	Communication data transfer clock signal input/output terminal Not used
30	IIC DATA	I/O	Communication data bus terminal Not used
31	NO USE	—	Not used
32	CD SQSO	I	Subcode Q data input from the digital signal processor
33	CD SQCLK	O	Subcode Q data reading clock signal output to the digital signal processor
34	$\overline{\text{ST STEREO}}$	I	FM stereo detection signal input from the tuner unit "L": stereo
35	CD DATA	O	Serial data output to the digital signal processor
36	CD XLT	O	Serial data latch pulse signal output to the digital signal processor
37	CD CLK	O	Serial data transfer clock signal output to the digital signal processor
38	TC PLAY SW	I	Head position detect switch input terminal
39	32K OUT	O	Clock (32.768 kHz) signal output terminal Not used
40	TC LINE MUTE	O	Line muting on/off control signal output to the recording/playback equalizer amplifier "H": muting on
41	TC REC/$\overline{\text{MUTE}}$	O	Recording muting on/off control signal output to the recording/playback equalizer amplifier "L": muting on
42	TC BIAS-ON	O	Recording bias on/off control signal output terminal "H": bias on
43	TC $\overline{\text{PB}}$/REC	O	Recording/playback selection signal output terminal "L": playback, "H": recording

Pin No.	Pin Name	I/O	Description
44	LED STANDBY	O	LED drive signal output of the standby indicator "H": LED on
45	SC DT	O	Serial data output to the digital audio signal processor
46	SC SHIFT	O	Serial data shift clock signal output to the digital audio signal processor
47	SC LATCH	O	Serial data latch pulse signal output to the digital audio signal processor
48	$\overline{\text{NSP MUTE}}$	O	Muting on/off control signal output to the digital audio signal processor "L": muting on
49	$\overline{\text{INIT}}$	O	Reset signal output to the digital audio signal processor "L": reset
50	HP DET	I	Headphone jack connection detection signal input terminal "L": no connected, "H": headphone connected
51	LED BL	O	Power on/off control signal output for the liquid crystal display back light "H": power on
52	VOL B	I	Jog dial pulse input from the rotary encoder (VOLUME) (B phase input)
53	VOL A	I	Jog dial pulse input from the rotary encoder (VOLUME) (A phase input)
54	CD LD-ON	O	CD-ROM/RW selection signal output to the RF amplifier "L": CD-ROM, "H": CD-RW
55	ENA	O	Output enable control signal output to the power amplifier
56	CD SENS	I	Internal status detection monitor input from the digital signal processor
57	$\overline{\text{ST TUNED}}$	I	Tuning detection signal input from the tuner unit "L": tuned
58	TC TRG	O	Trigger plunger on/off control signal output terminal "H": plunger on
59	TC CAPM-CONT	O	Capstan/reel motor on/off control signal output terminal "H": motor on
60	CD XRST	O	Reset signal output to the digital signal processor and motor/coil driver "L": reset
61	DIAG	I	Protect signal input from the power amplifier and protect detect circuit
62	VCC	—	Power supply terminal (+3.3V)
63	SOFT TEST	O	Output terminal for the software test Not used
64	VSS	—	Ground terminal
65	CD BD-PWR	O	Power supply on/off control signal output for the CD section "H": power on
66	SP RELAY	O	Relay drive signal output for the speaker protect Not used
67	CDM LOAD-OUT	O	Motor drive signal (open direction) output terminal
68	CDM LOAD-IN	O	Motor drive signal (close direction) output terminal
69	CDM OUT-SW	I	Loading in/out detect switch input terminal "L": loading out
70	CDM IN-SW	I	Loading in/out detect switch input terminal "L": loading in
71	BASS A	I	Jog dial pulse input from the rotary encoder (BASS) (A phase input)
72	BASS B	I	Jog dial pulse input from the rotary encoder (BASS) (B phase input)
73	$\overline{\text{P DOWN}}$	O	Power down control signal output to the A/D converter "L": power down
74	KEY WAKE UP	I	System wake up signal input by pressing any key
75	—	—	Not used
76	TRE A	I	Jog dial pulse input from the rotary encoder (TREBLE) (A phase input)
77	TRE B	I	Jog dial pulse input from the rotary encoder (TREBLE) (B phase input)
78	CD MUTE	O	CD analog signal muting on/off control signal output terminal "H": muting on
79	LED CD	O	LED drive signal output of the CD ►II indicator "H": LED on
80	TC ALC	O	Automatic limiter control signal output to the recording/playback equalizer amplifier "H": limiter on
81	LINE MUTE	O	Audio line muting on/off control signal output terminal "H": muting on
82	PWR RELAY	O	Main system power supply on/off control signal output terminal "H": power on
83	LED DSG	O	LED drive signal output of the DSG indicator "H": LED on
84	LED TUNER	O	LED drive signal output of the TUNER BAND indicator "H": LED on
85	HP MUTE	O	Headphone muting on/off control signal output terminal "H": muting on
86	EQ CE	O	Chip enable signal output to the electrical volume
87	EQ DATA	O	Serial data output to the electrical volume
88	EQ CLK	O	Serial data transfer clock signal output to the electrical volume
89	LED TC	O	LED drive signal output of the TAPE ◄► indicator "H": LED on

Pin No.	Pin Name	I/O	Description
90	TC END SW	I	Tape end detect switch input terminal
91	TC HALF/REC/SW	I	Recording-proof claw (forward/reverse) detect switch and cassette in detect switch input terminal (A/D input)
92	MODEL	I	Model setting terminal
93	DEST	I	Destination setting terminal
94, 95	KEY3, KEY2	I	Front panel key input terminal (A/D input)
96	AVSS	—	Ground terminal (for analog system)
97	KEY1	I	Front panel key input terminal (A/D input)
98	VREF	I	Reference voltage (+3.3V) input terminal
99	AVCC	—	Power supply terminal (+3.3V) (for analog system)
100	$\overline{\text{LCD RESET}}$	O	Reset signal output to the liquid crystal display driver “L”: reset

SECTION 7
EXPLODED VIEWS

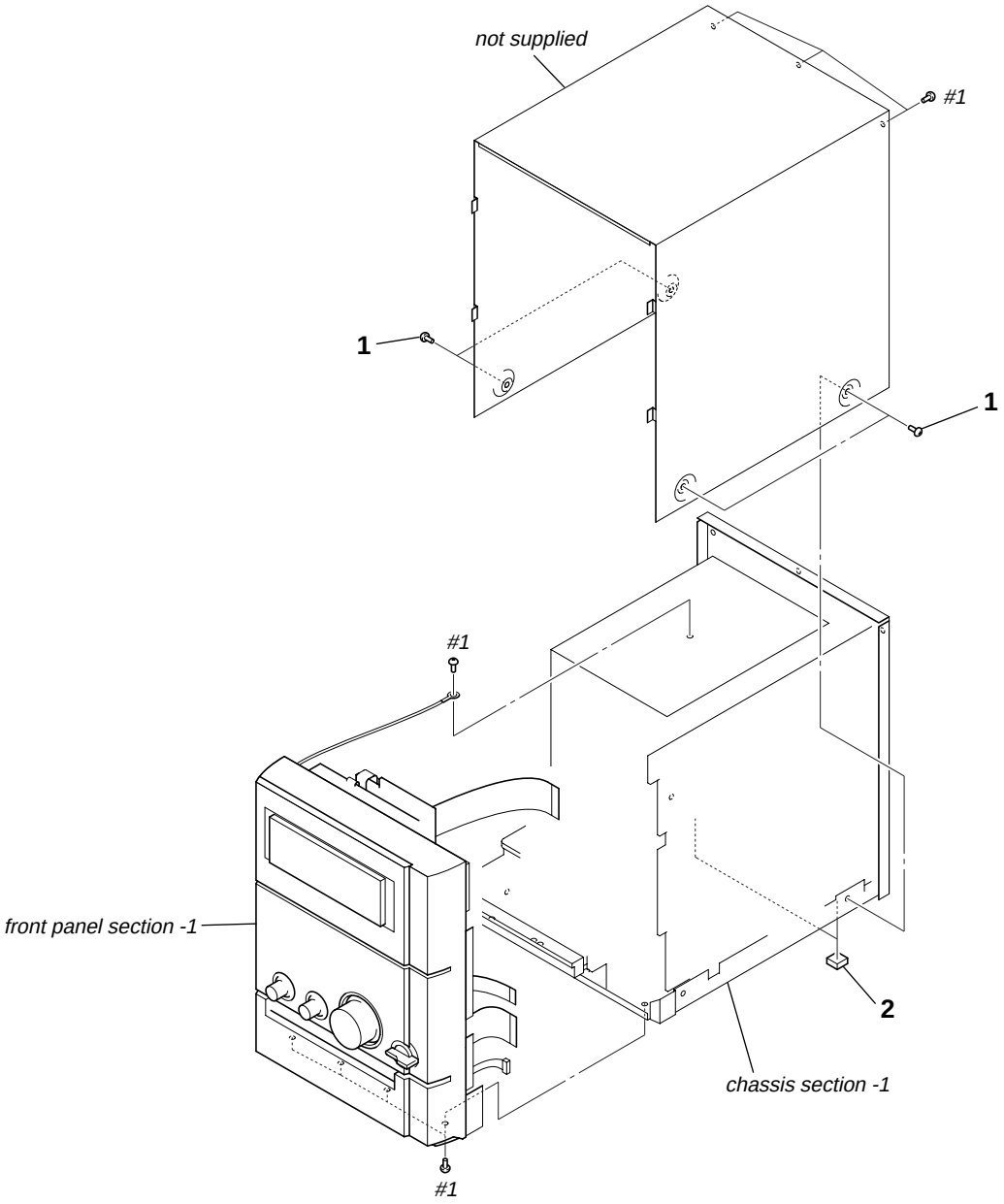
NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  AUS : Australian model
  CND : Canadian model
  KR : Korean model
  SP : Singapore model

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

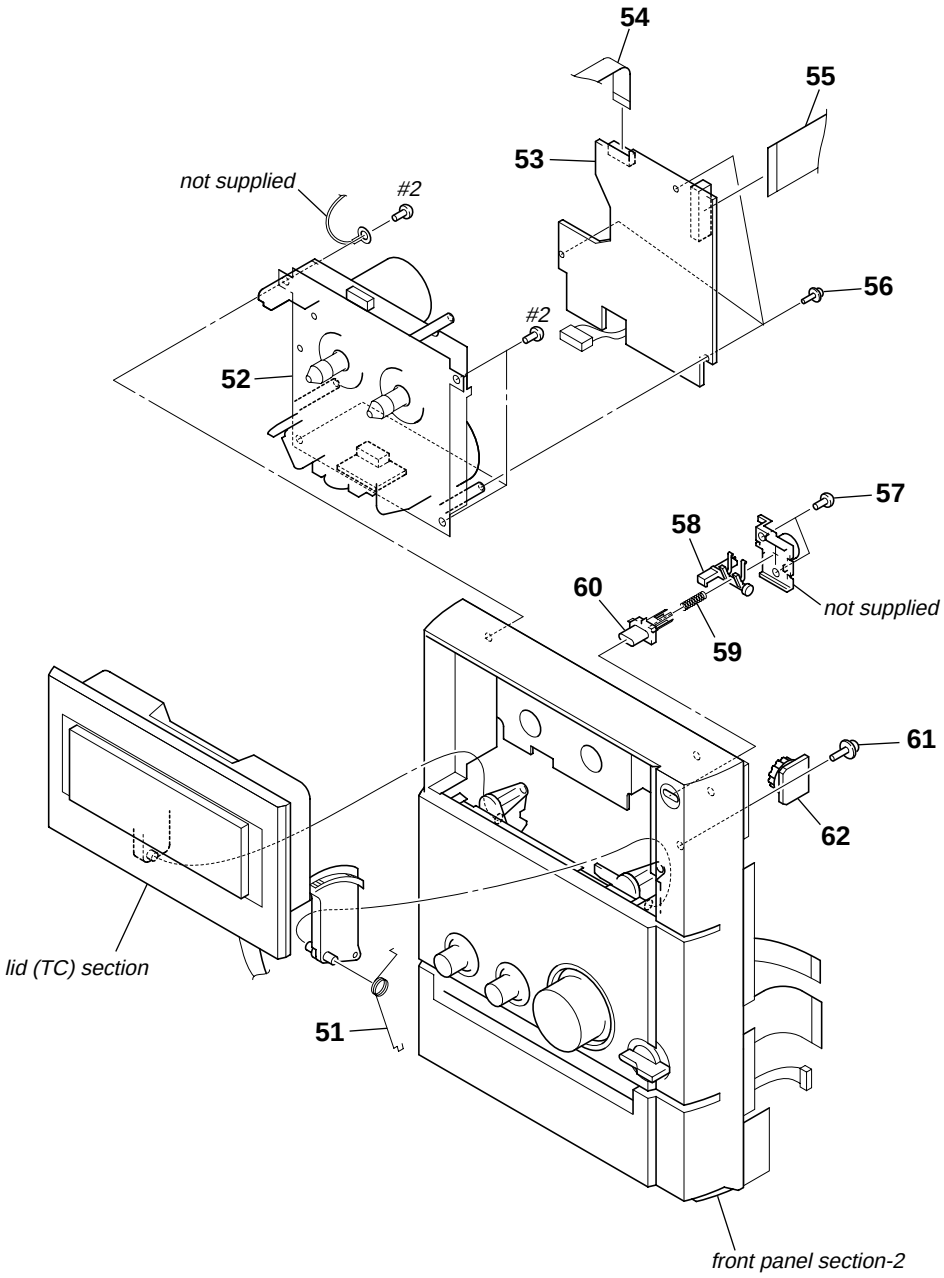
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CASE SECTION



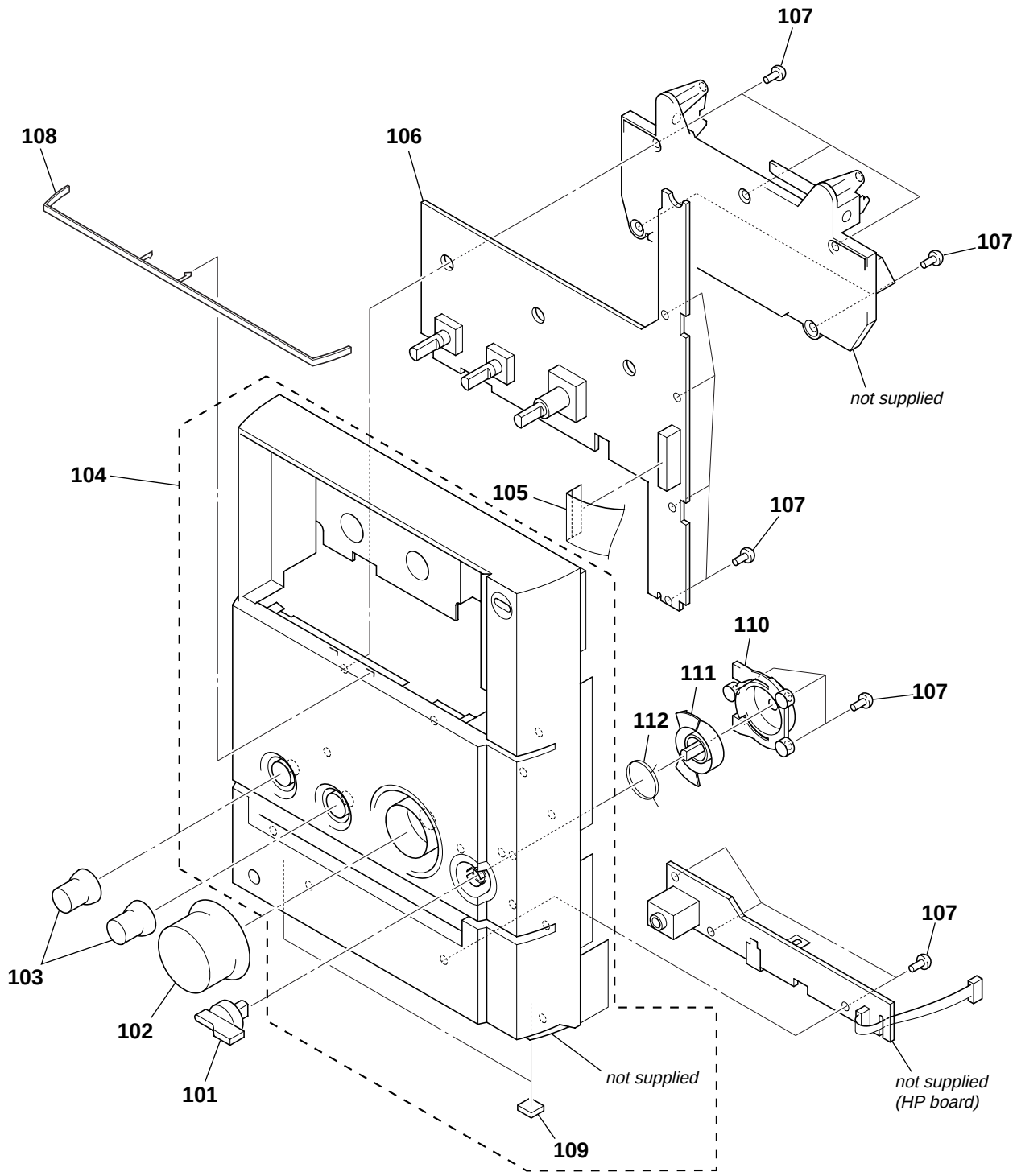
Ref. No.	Part No.	Description	Remark
1	3-363-099-11	SCREW (CASE 3 TP2)	
2	4-233-372-02	FOOT (FELT)	
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 TT (B)	

7-2. FRONT PANEL SECTION-1



Ref. No.	Part No.	Description	Remark
51	4-244-021-01	SPRING (LID TC), TORSION	
52	1-796-456-31	DECK, MECHANICAL	
53	A-4731-316-A	TC BOARD, COMPLETE	
54	1-824-192-11	WIRE (FLAT TYPE) (8 CORE)	
55	1-773-110-11	WIRE (FLAT TYPE) (19 CORE)	
56	3-669-480-11	+ PTPWH 2	
57	4-951-620-01	SCREW (2.6X8), +BVTP	
58	4-244-014-01	LEVER (EJECT)	
59	4-244-023-01	SPRING (EJECT), COMPRESSION	
60	4-244-012-01	BUTTON (EJECT)	
61	4-933-134-11	SCREW (+PTPWH M2.6X8)	
62	4-244-530-01	DAMPER	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 TT (B)	

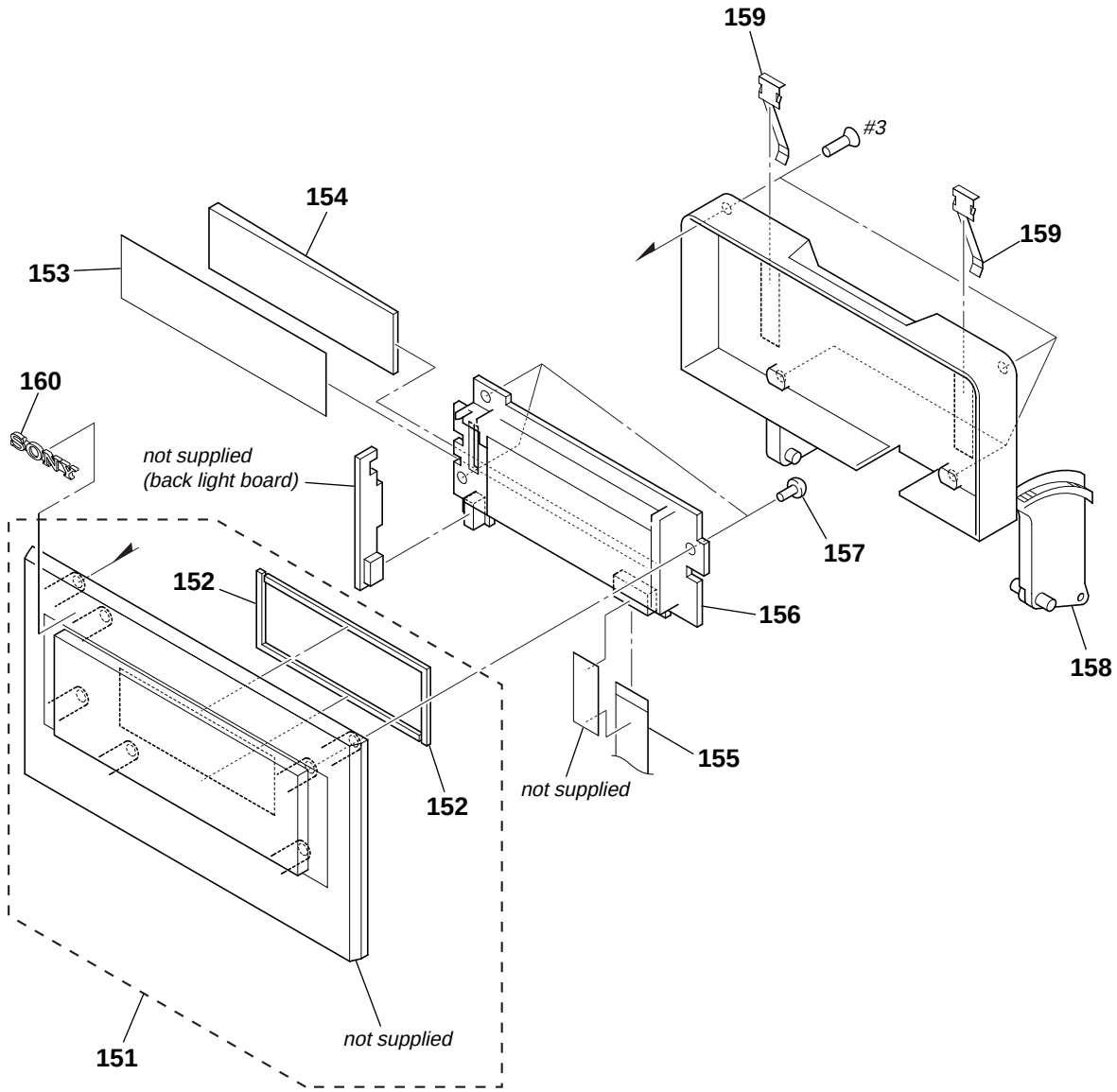
7-3. FRONT PANEL SECTION-2



Ref. No.	Part No.	Description	Remark
101	4-240-765-11	KNOB, TUNING	
102	4-240-764-11	KNOB, VOLUME	
103	4-240-763-11	KNOB, BASS	
104	X-4955-234-2	PANEL ASSY, FRONT (US, CND)	
104	X-4955-698-2	PANEL (HB) ASSY, FRONT (SP, KR, AUS)	
105	1-776-183-11	WIRE (FLAT TYPE) (19 CORE)	
106	A-4731-306-A	SWITCH BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
107	4-951-620-01	SCREW (2.6X8), +BVTP	
108	4-244-006-01	BAND (UPPER), DIVISION	
109	4-233-372-02	FOOT (FELT)	
110	4-240-771-11	SUPPORT, TUNING	
111	4-240-770-11	LEVER, TUNING	
112	4-240-787-01	SPRING, TUNING	

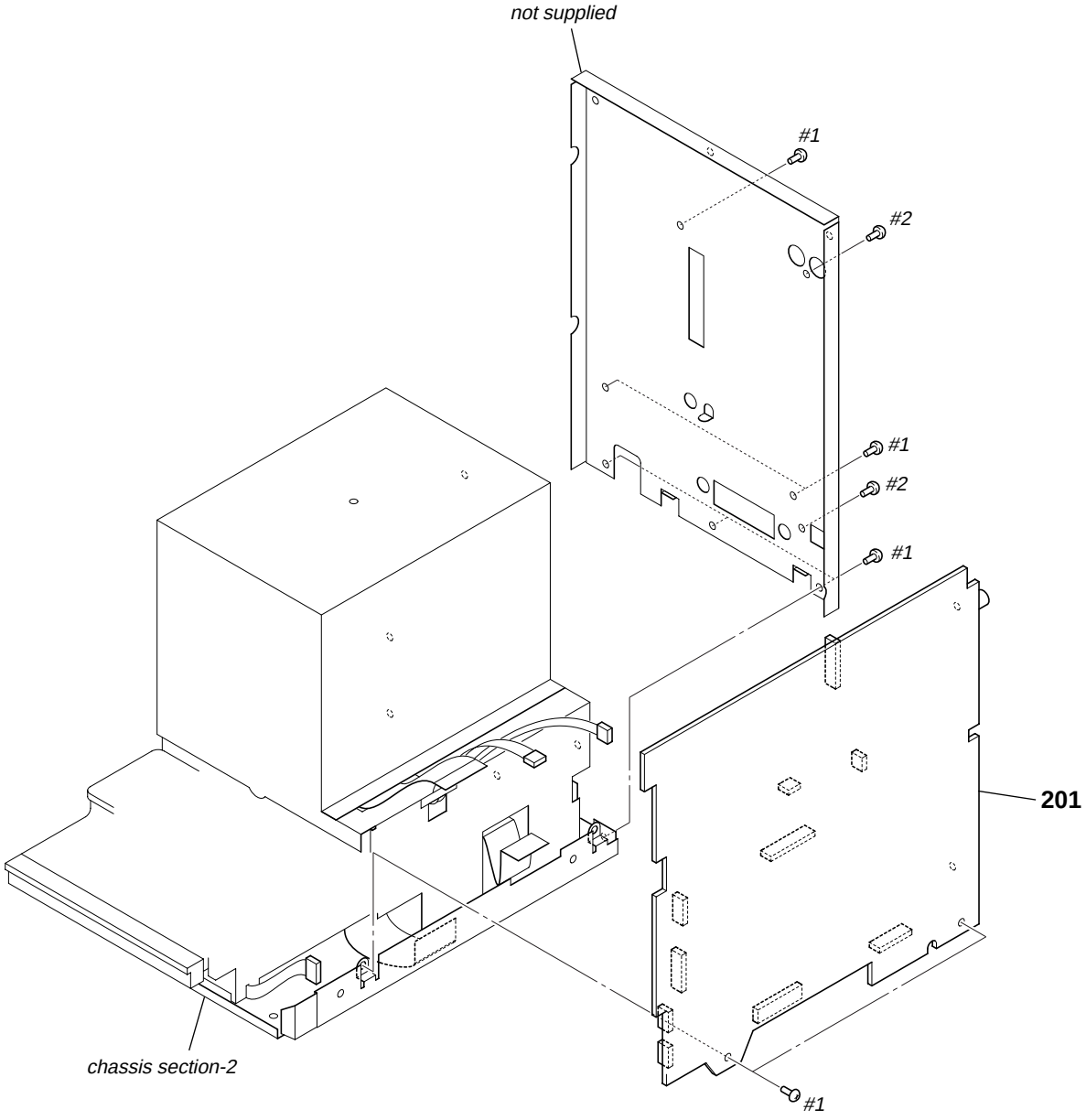
7-4. LID (TC) SECTION



Ref. No.	Part No.	Description	Remark
151	X-4955-604-1	LID (TC) (C) ASSY	
152	4-236-666-01	CUSHION (LCD)	
153	4-244-026-01	SHEET, DIFFUSION	
154	4-244-009-01	PLATE, LIGHT GUIDE	
155	1-769-916-11	WIRE (FLAT TYPE) (9 CORE)	
156	1-686-791-11	LCD BOARD	

Ref. No.	Part No.	Description	Remark
157	4-951-620-01	SCREW (2.6X8), +BVTP	
158	4-244-007-01	HOLDER (TC)	
159	4-244-022-01	SPRING (TC), LEAF	
160	4-925-161-81	EMBLEM (4-A), SONY	
#3	7-685-234-14	SCREW +KTP 2.6X8 TYPE2NON-SLIT	

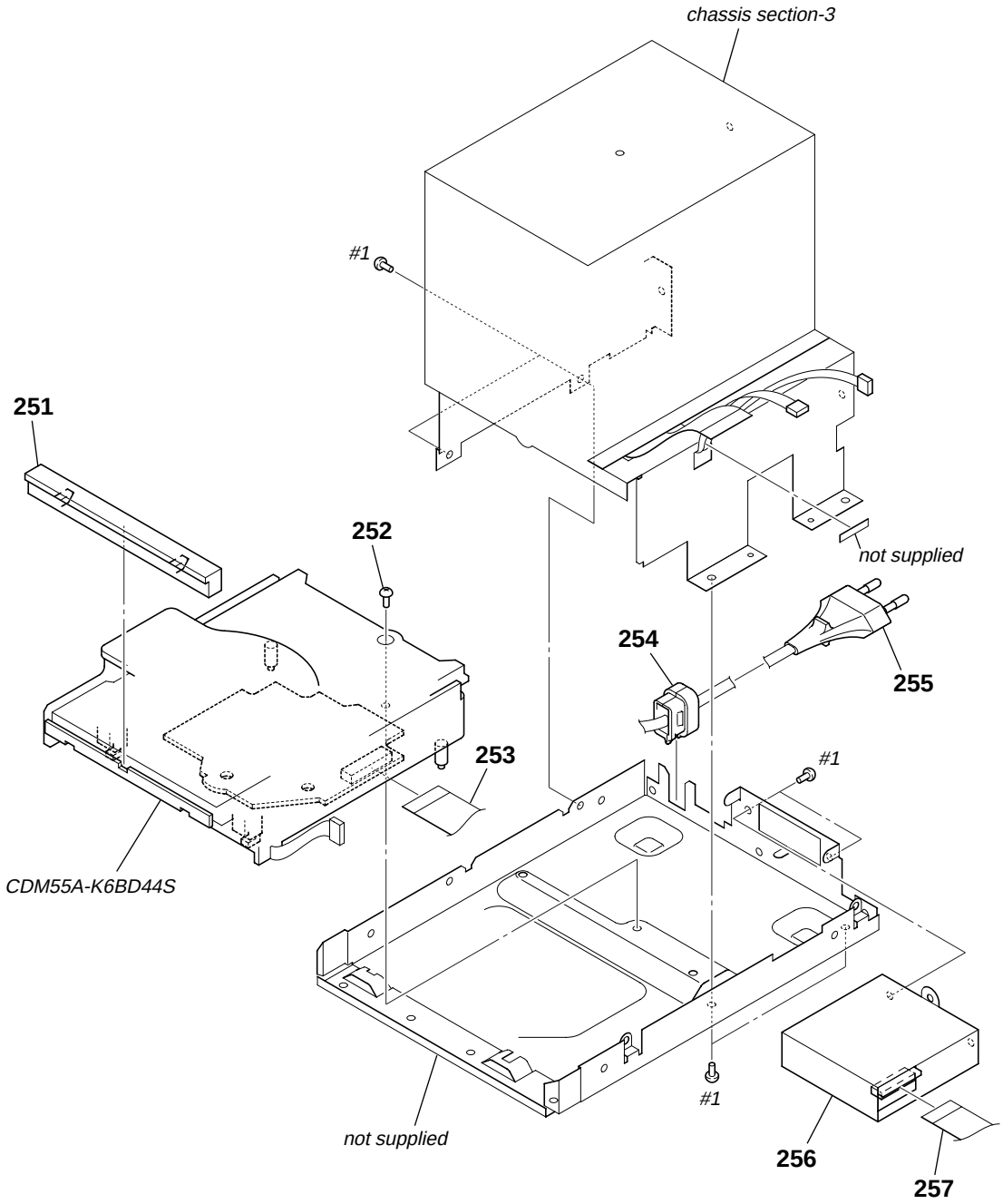
7-5. CHASSIS SECTION-1



Ref. No.	Part No.	Description	Remark
201	A-4731-299-A	MAIN BOARD, COMPLETE (SP, KR)	
201	A-4731-302-A	MAIN BOARD, COMPLETE (US, CND)	
201	A-4733-555-A	MAIN BOARD, COMPLETE (AUS)	

Ref. No.	Part No.	Description	Remark
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 TT (B)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 TT (B)	

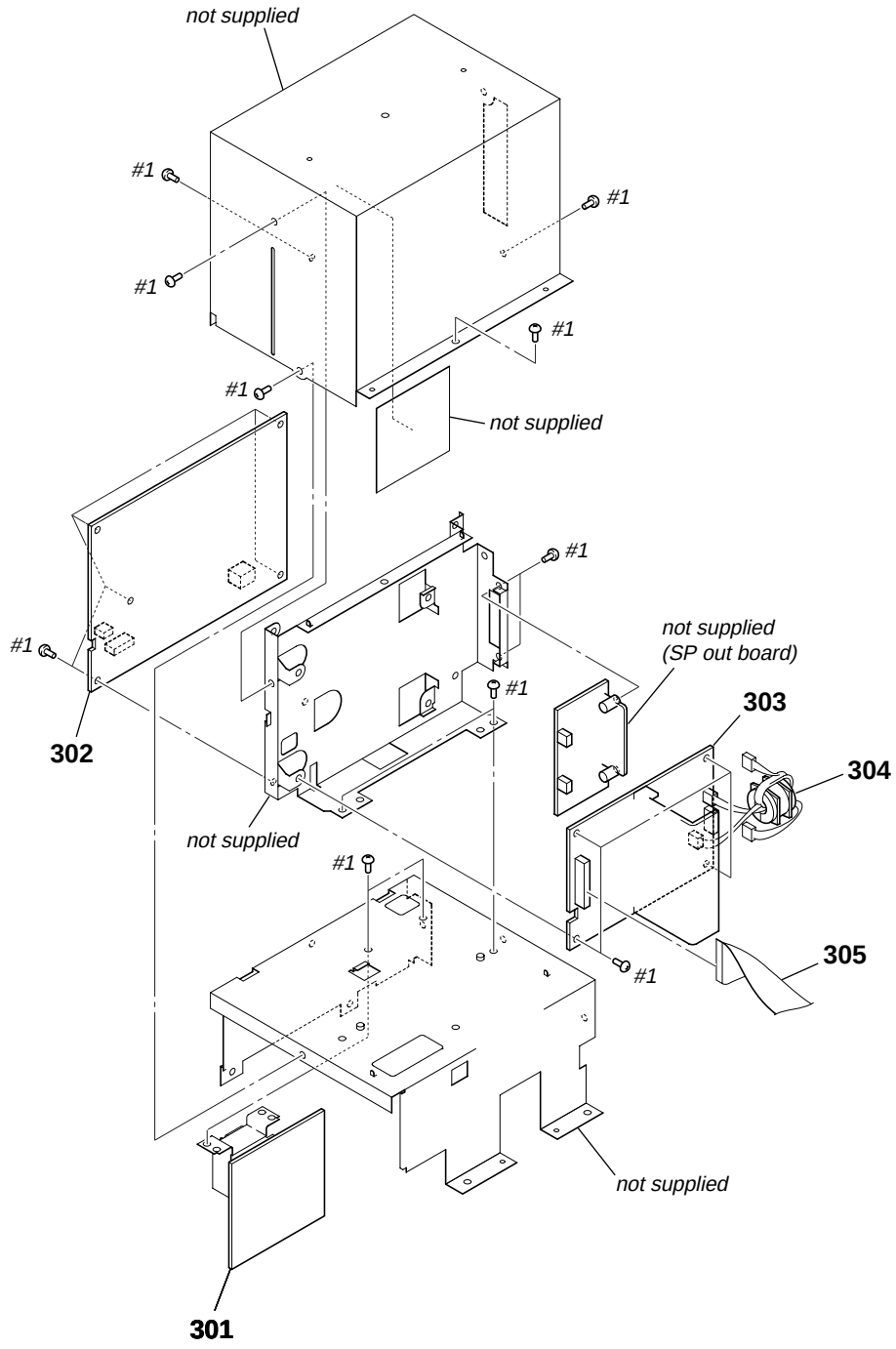
7-6. CHASSIS SECTION-2



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
251	4-240-766-11	LID, CD	
252	3-970-608-01	SUMITITE (B3), +BV	
253	1-824-930-11	WIRE (FLAT TYPE) (21 CORE)	
254	3-703-244-00	BUSHING (2104), CORD	
⚠255	1-769-079-22	CORD, POWER (KR)	
⚠255	1-777-071-83	CORD, POWER (SP)	
⚠255	1-783-203-12	CORD, POWER (AUS)	
⚠255	1-783-531-31	CORD, POWER (US, CND)	
256	1-693-603-31	TUNER UNIT (SP, AUS)	
256	1-693-605-11	TUNER UNIT (KR)	
256	1-693-623-31	TUNER UNIT (US, CND)	
257	1-769-937-11	WIRE (FLAT TYPE) (11 CORE)	
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 TT (B)	

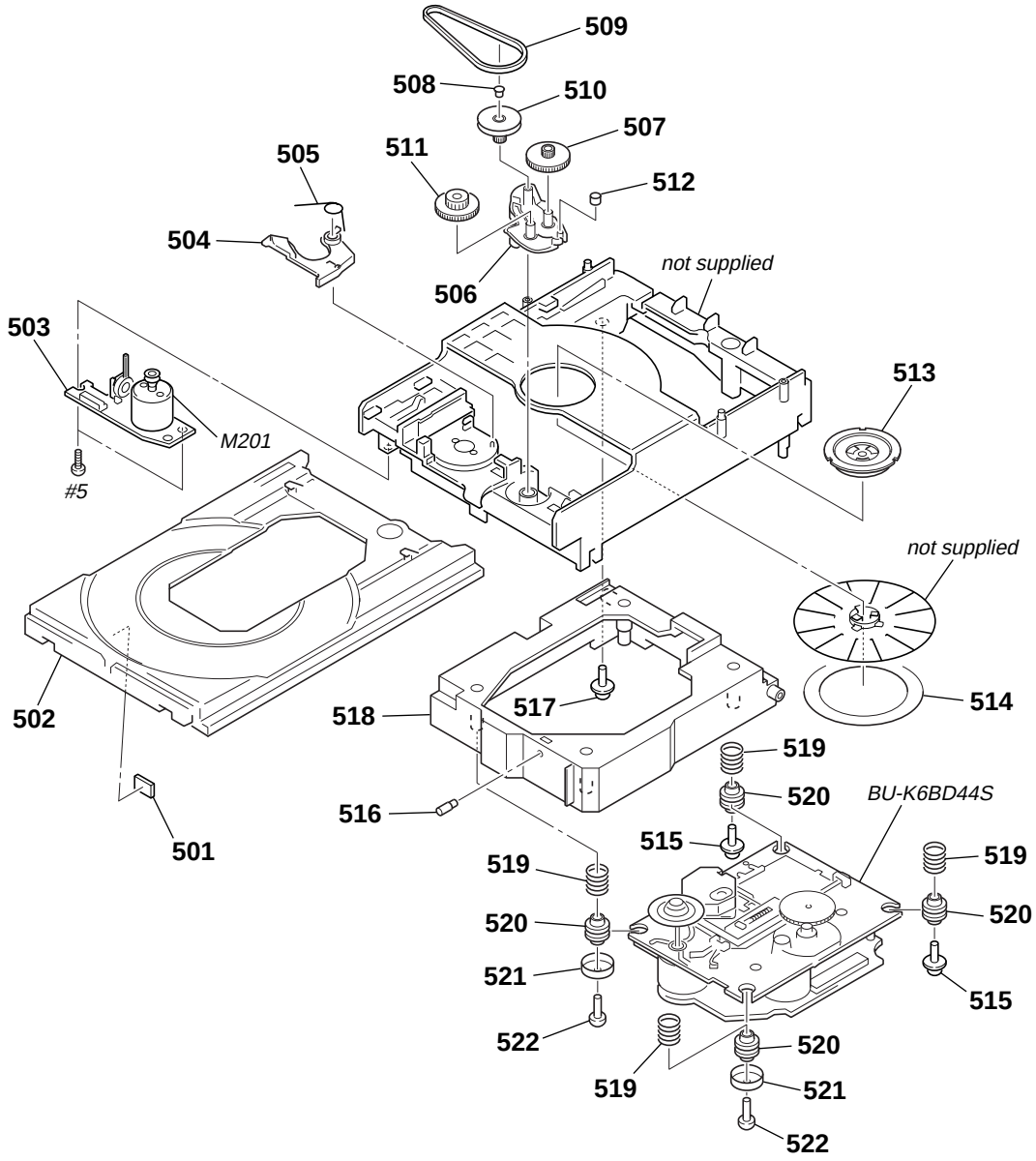
7-7. CHASSIS SECTION-3



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
301	1-686-794-11	SUB POWER BOARD	
⚠302	1-468-729-11	REGULATOR, SWITCHING (US, CND)	
⚠302	1-468-730-11	REGULATOR, SWITCHING (SP, KR, AUS)	
303	A-4731-313-A	AMP BOARD, COMPLETE	
304	1-500-484-21	CLAMP, SLEEVE FERRITE	
305	1-773-152-11	WIRE (FLAT TYPE) (21 CORE)	
#1	7-685-645-79	SCREW +BVTP 3X6 TYPE2 TT (B)	

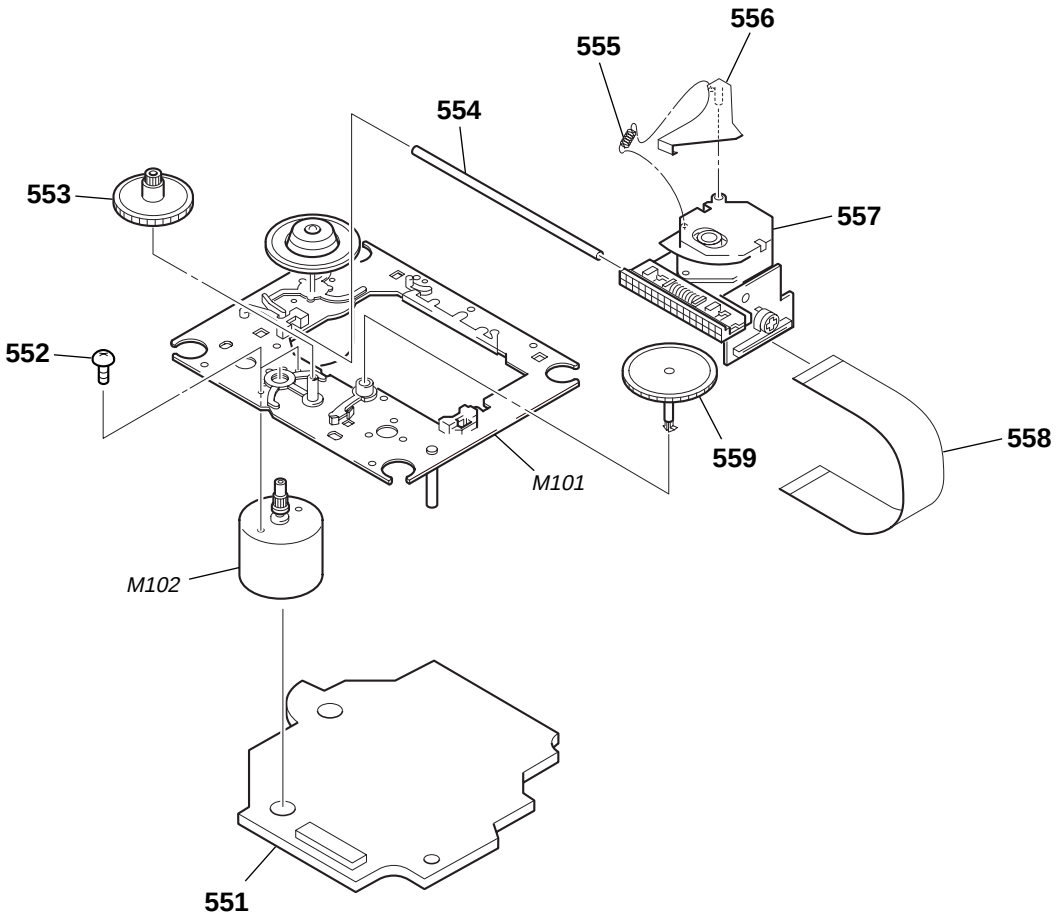
7-8. CD MECHANISM DECK SECTION (CDM55A-K6BD44S)



Ref. No.	Part No.	Description	Remark
501	4-925-315-31	DAMPER	
502	4-224-894-22	TRAY (CDM55D)	
503	1-674-336-12	LOADING BOARD	
504	4-220-229-02	LEVER (SW)	
505	4-220-239-01	SPRING, TORSION	
506	4-220-233-01	CAM (CDM55)	
507	4-220-238-01	GEAR (B)	
508	4-227-598-01	SPACER (55)	
509	4-221-816-01	BELT (CDM55)	
510	4-220-234-01	PULLEY (LDG)	
511	4-220-237-01	GEAR (A)	
512	4-221-815-11	ROLLER	

Ref. No.	Part No.	Description	Remark
513	A-4735-082-A	MAGNET ASSY	
514	4-231-777-02	SHEET (KH2)	
515	4-218-252-31	SCREW (+PTPWH M2.6), FLOATING	
516	4-229-358-01	SHAFT (BU21)	
517	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
518	4-244-962-01	HOLDER (C213)	
519	4-244-959-01	SPRING (T213), COMPRESSION	
520	4-227-549-11	INSULATOR	
521	4-231-151-01	STOPPER (BU)	
522	4-218-253-31	SCREW (M2.6), +BTTP	
M201	A-4735-337-A	MOTOR (LD) ASSY (LOADING)	
#5	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	

7-9. BASE UNIT SECTION (BU-K6BD44S)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
551	A-4731-164-A	BD BOARD, COMPLETE	
552	3-713-786-51	SCREW (M2X3)	
553	2-627-003-01	GEAR (B) (RP)	
554	2-626-908-51	SHAFT, SLED	
555	2-646-702-01	SPRING, EXTENSION	
556	2-646-697-02	SHUTTER (F), LENS	
⚠557	8-820-020-11	OPTICAL PICK-UP KSS-213D/Z-RP	
558	1-792-024-11	WIRE (FLAT TYPE) (16 CORE)	
559	2-625-188-02	GEAR (A)	
M101	X-2161-802-1	CHASSIS ASSY (DCP), T.T (SPINDLE)	
M102	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)	

SECTION 8
ELECTRICAL PARTS LIST

AMP

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  AUS : Australian model KR : Korean model
  CND : Canadian model SP : Singapore model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA. . : μA. . uPA. . : μPA. .
  uPB. . : μPB. . uPC. . : μPC. .
  uPD. . : μPD. .
- CAPACITORS
  uF: μF
- COILS
  uH: μH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-4731-313-A	AMP BOARD, COMPLETE			
		**********			
	7-685-645-79	SCREW +BVTP 3X6 TYPE2 TT (B)			
		< CAPACITOR/SHORT >			
C600	1-128-549-11	ELECT	3300uF	20%	35V
C601	1-104-665-11	ELECT	100uF	20%	10V
C602	1-126-964-11	ELECT	10uF	20%	50V
C603	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C604	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C605	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C606	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C607	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C608	1-126-964-11	ELECT	10uF	20%	50V
C609	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C610	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C611	1-126-960-11	ELECT	1uF	20%	50V
C612	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C613	1-216-864-11	SHORT CHIP	0		
C614	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C615	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V
C616	1-128-551-11	ELECT	22uF	20%	25V
C617	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C618	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C619	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C620	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C621	1-126-960-11	ELECT	1uF	20%	50V
C622	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C623	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C625	1-126-963-11	ELECT	4.7uF	20%	50V
C628	1-126-963-11	ELECT	4.7uF	20%	50V
C629	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C630	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C631	1-126-963-11	ELECT	4.7uF	20%	50V
C632	1-104-665-11	ELECT	100uF	20%	10V
C633	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C634	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C635	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C636	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C637	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C638	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C639	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C640	1-104-665-11	ELECT	100uF	20%	10V
C648	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C649	1-104-665-11	ELECT	100uF	20%	10V
C650	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C651	1-137-372-11	MYLAR	0.022uF	5%	50V
C652	1-104-665-11	ELECT	100uF	20%	10V
C653	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C654	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C655	1-137-807-31	ELECT	100uF	20%	50V
C656	1-131-704-11	FILM	1uF	5%	50V
C659	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C660	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C661	1-137-372-11	MYLAR	0.022uF	5%	50V
C663	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C666	1-131-704-11	FILM	1uF	5%	50V
C668	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C669	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C670	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C671	1-137-372-11	MYLAR	0.022uF	5%	50V
C672	1-104-665-11	ELECT	100uF	20%	10V
C673	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C674	1-216-864-11	SHORT CHIP	0		
C675	1-137-807-31	ELECT	100uF	20%	50V
C676	1-131-704-11	FILM	1uF	5%	50V
C678	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C679	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C680	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C681	1-137-372-11	MYLAR	0.022uF	5%	50V
C682	1-104-665-11	ELECT	100uF	20%	10V
C683	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C686	1-131-704-11	FILM	1uF	5%	50V
C689	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C690	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C692	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C693	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C694	1-164-346-11	CERAMIC CHIP	1uF		16V
C697	1-216-864-11	SHORT CHIP	0		
C698	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C699	1-162-974-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
* CN600	1-564-508-11	PLUG, CONNECTOR 5P			
CN601	1-568-838-11	CONNECTOR, FFC 21P			

AMP **BACK LIGHT**

Ref. No.	Part No.	Description		Remark
		< DIODE >		
D611	8-719-988-61	DIODE	1SS355TE-17	
D621	8-719-988-61	DIODE	1SS355TE-17	
D650	6-500-131-01	DIODE	LI116	
D651	6-500-248-01	DIODE	SFPL-62V	
D652	6-500-060-01	DIODE	P6SMB36AT3	
D660	6-500-131-01	DIODE	LI116	
D661	6-500-248-01	DIODE	SFPL-62V	
D662	6-500-060-01	DIODE	P6SMB36AT3	
D670	6-500-131-01	DIODE	LI116	
D671	6-500-248-01	DIODE	SFPL-62V	
D672	6-500-060-01	DIODE	P6SMB36AT3	
D680	6-500-131-01	DIODE	LI116	
D681	6-500-248-01	DIODE	SFPL-62V	
D682	6-500-060-01	DIODE	P6SMB36AT3	
		< GROUND TERMINAL >		
EP601	1-537-771-21	TERMINAL BOARD, GROUND		
EP602	1-537-771-21	TERMINAL BOARD, GROUND		
EP603	1-537-771-21	TERMINAL BOARD, GROUND		
		< SHORT/FERRITE BEAD >		
FB601	1-216-864-11	SHORT CHIP	0	
FB604	1-216-864-11	SHORT CHIP	0	
FB605	1-469-324-21	FERRITE	0uH	
FB606	1-216-864-11	SHORT CHIP	0	
FB607	1-216-864-11	SHORT CHIP	0	
FB610	1-469-324-21	FERRITE	0uH	
FB620	1-469-324-21	FERRITE	0uH	
FB640	1-216-864-11	SHORT CHIP	0	
FB641	1-216-864-11	SHORT CHIP	0	
FB642	1-216-864-11	SHORT CHIP	0	
FB650	1-469-324-21	FERRITE	0uH	
FB652	1-414-551-11	FERRITE	0uH	
FB653	1-414-551-11	FERRITE	0uH	
FB660	1-216-296-11	SHORT CHIP	0	
FB662	1-414-551-11	FERRITE	0uH	
FB663	1-414-551-11	FERRITE	0uH	
FB670	1-216-296-11	SHORT CHIP	0	
FB680	1-469-324-21	FERRITE	0uH	
		< IC >		
IC600	6-703-287-01	IC	CXD9743N	
IC603	6-701-834-01	IC	PCM1802DBR	
IC604	8-759-387-77	IC	TC7WU04F-TE12L	
IC610	6-701-189-01	IC	MC74VHC1GU04DFT1	
IC618	6-700-263-01	IC	NJM2870F18 (TE2)	
IC650	6-703-288-01	IC	CXD9750L	
IC680	6-703-288-01	IC	CXD9750L	
		< COIL >		
L601	1-469-525-11	INDUCTOR	10uH	
L602	1-469-525-11	INDUCTOR	10uH	
L603	1-469-525-11	INDUCTOR	10uH	
L604	1-412-939-11	INDUCTOR	1uH	
L621	1-469-525-11	INDUCTOR	10uH	
L650	1-424-777-11	INDUCTOR	10uH	
L670	1-424-777-11	INDUCTOR	10uH	
		< TRANSISTOR >		
Q691	8-729-602-36	TRANSISTOR	2SA1602-F	
Q692	8-729-602-36	TRANSISTOR	2SA1602-F	
Q693	8-729-602-36	TRANSISTOR	2SA1602-F	
Q694	8-729-602-36	TRANSISTOR	2SA1602-F	
Q696	8-729-120-28	TRANSISTOR	2SC1623-L5L6	
		< RESISTOR >		
R601	1-216-809-11	METAL CHIP	100 5%	1/10W
R602	1-216-809-11	METAL CHIP	100 5%	1/10W
R603	1-216-809-11	METAL CHIP	100 5%	1/10W
R604	1-216-809-11	METAL CHIP	100 5%	1/10W
R605	1-216-821-11	METAL CHIP	1K 5%	1/10W
R606	1-216-809-11	METAL CHIP	100 5%	1/10W
R607	1-216-809-11	METAL CHIP	100 5%	1/10W
R608	1-216-864-11	SHORT CHIP	0	
R609	1-216-809-11	METAL CHIP	100 5%	1/10W
R610	1-216-809-11	METAL CHIP	100 5%	1/10W
R612	1-216-809-11	METAL CHIP	100 5%	1/10W
R613	1-216-809-11	METAL CHIP	100 5%	1/10W
R614	1-216-857-11	METAL CHIP	1M 5%	1/10W
R615	1-216-817-11	METAL CHIP	470 5%	1/10W
R618	1-216-864-11	SHORT CHIP	0	
R619	1-216-857-11	METAL CHIP	1M 5%	1/10W
R620	1-218-484-11	METAL CHIP	750 5%	1/10W
R623	1-216-845-11	METAL CHIP	100K 5%	1/10W
R640	1-216-809-11	METAL CHIP	100 5%	1/10W
R641	1-216-809-11	METAL CHIP	100 5%	1/10W
R642	1-216-809-11	METAL CHIP	100 5%	1/10W
R651	1-216-296-11	SHORT CHIP	0	
R652	1-216-809-11	METAL CHIP	100 5%	1/10W
R653	1-216-809-11	METAL CHIP	100 5%	1/10W
R661	1-216-296-11	SHORT CHIP	0	
R662	1-216-809-11	METAL CHIP	100 5%	1/10W
R663	1-216-809-11	METAL CHIP	100 5%	1/10W
R671	1-216-296-11	SHORT CHIP	0	
R681	1-216-296-11	SHORT CHIP	0	
R691	1-216-845-11	METAL CHIP	100K 5%	1/10W
R692	1-216-845-11	METAL CHIP	100K 5%	1/10W
R693	1-216-845-11	METAL CHIP	100K 5%	1/10W
R694	1-216-845-11	METAL CHIP	100K 5%	1/10W
R695	1-216-845-11	METAL CHIP	100K 5%	1/10W
R696	1-216-845-11	METAL CHIP	100K 5%	1/10W
R697	1-216-845-11	METAL CHIP	100K 5%	1/10W
		< VIBRATOR >		
X601	1-795-843-11	VIBRATOR, CRYSTAL (49.152MHz)		
X602	1-795-660-21	QUARTZ CRYSTAL UNIT (12.288MHz)		
**********				
		BACK LIGHT BOARD		
		**********		
		< CONNECTOR >		
CN804	1-770-011-41	CONNECTOR, BOARD TO BOARD 4P		

BACK LIGHT BD

Ref. No.	Part No.	Description			Remark
		< LED >			
D806	8-719-075-50	LED SELS6B14C-TP5 (LCD BACK LIGHT)			
D807	8-719-075-50	LED SELS6B14C-TP5 (LCD BACK LIGHT)			
D808	8-719-075-50	LED SELS6B14C-TP5 (LCD BACK LIGHT)			
**********					
	A-4731-164-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C104	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C110	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C111	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C112	1-115-156-11	CERAMIC CHIP	1uF		10V
C114	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C116	1-126-382-11	ELECT	100uF	20%	16V
C117	1-126-382-11	ELECT	100uF	20%	16V
C118	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C121	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C122	1-104-665-11	ELECT	100uF	20%	16V
C123	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C124	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C126	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C127	1-126-382-11	ELECT	100uF	20%	16V
C130	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C131	1-104-665-11	ELECT	100uF	20%	16V
C133	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C140	1-115-156-11	CERAMIC CHIP	1uF		10V
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C145	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C146	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C150	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C153	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C159	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C162	1-126-382-11	ELECT	100uF	20%	16V
C163	1-104-665-11	ELECT	100uF	20%	16V
C165	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C167	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C168	1-162-975-11	CERAMIC CHIP	24PF	5%	50V
C171	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C172	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C181	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C182	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C183	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C184	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C185	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C191	1-104-665-11	ELECT	100uF	20%	16V
C192	1-126-382-11	ELECT	100uF	20%	16V
C193	1-126-382-11	ELECT	100uF	20%	16V
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C197	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C198	1-104-665-11	ELECT	100uF	20%	16V
		< CONNECTOR >			
CN101	1-569-914-11	SOCKET, CONNECTOR 21P			
CN102	1-793-907-11	CONNECTOR, FFC/FPC 16P			
		< SHORT >			
FB101	1-216-864-11	SHORT CHIP	0		
FB103	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC101	8-752-402-31	IC CXD3017Q			
IC102	8-759-677-90	IC BA5947FP-E2			
IC103	8-752-106-21	IC CXA2647N-T4			
		< SHORT >			
JR101	1-216-864-11	SHORT CHIP	0		
		< TRANSISTOR >			
Q101	8-729-046-90	TRANSISTOR	2SB970-(TX).S0		
		< RESISTOR >			
R101	1-216-821-11	METAL CHIP	1K	5%	1/10W
R102	1-216-845-11	METAL CHIP	100K	5%	1/10W
R103	1-216-835-11	METAL CHIP	15K	5%	1/10W
R104	1-216-839-11	METAL CHIP	33K	5%	1/10W
R106	1-216-821-11	METAL CHIP	1K	5%	1/10W
R107	1-216-833-11	METAL CHIP	10K	5%	1/10W
R108	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R109	1-216-857-11	METAL CHIP	1M	5%	1/10W
R111	1-216-846-11	METAL CHIP	120K	5%	1/10W
R114	1-216-852-11	METAL CHIP	390K	5%	1/10W
R116	1-216-797-11	METAL CHIP	10	5%	1/10W
R117	1-216-821-11	METAL CHIP	1K	5%	1/10W
R118	1-216-809-11	METAL CHIP	100	5%	1/10W
R119	1-216-824-11	METAL CHIP	1.8K	5%	1/10W
R120	1-216-835-11	METAL CHIP	15K	5%	1/10W
R122	1-216-845-11	METAL CHIP	100K	5%	1/10W
R123	1-216-833-11	METAL CHIP	10K	5%	1/10W
R124	1-216-845-11	METAL CHIP	100K	5%	1/10W
R131	1-216-813-11	METAL CHIP	220	5%	1/10W
R143	1-216-836-11	METAL CHIP	18K	5%	1/10W
R144	1-216-836-11	METAL CHIP	18K	5%	1/10W
R147	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R148	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R150	1-216-833-11	METAL CHIP	10K	5%	1/10W
R151	1-216-846-11	METAL CHIP	120K	5%	1/10W
R158	1-216-837-11	METAL CHIP	22K	5%	1/10W
R159	1-216-837-11	METAL CHIP	22K	5%	1/10W
R162	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R171	1-216-837-11	METAL CHIP	22K	5%	1/10W
R172	1-216-837-11	METAL CHIP	22K	5%	1/10W
R173	1-216-837-11	METAL CHIP	22K	5%	1/10W
R181	1-216-837-11	METAL CHIP	22K	5%	1/10W
R182	1-216-837-11	METAL CHIP	22K	5%	1/10W
R183	1-216-837-11	METAL CHIP	22K	5%	1/10W
R191	1-216-839-11	METAL CHIP	33K	5%	1/10W

BD HP LCD LOADING MAIN

Ref. No.	Part No.	Description			Remark
R192	1-216-839-11	METAL CHIP	33K	5%	1/10W
R193	1-216-847-11	METAL CHIP	150K	5%	1/10W
R194	1-216-843-11	METAL CHIP	68K	5%	1/10W
R195	1-216-851-11	METAL CHIP	330K	5%	1/10W
R196	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R197	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< COMPOSITION CIRCUIT BLOCK >			
RN101	1-233-576-11	RES, CHIP NETWORK 100			
		< SWITCH >			
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)			
		< VIBRATOR >			
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)			
**********					
		HP BOARD			
		*********			
		< CAPACITOR >			
C817	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C818	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
C820	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< SHORT >			
FB801	1-216-864-11	SHORT CHIP	0		
FB802	1-216-864-11	SHORT CHIP	0		
FB803	1-216-864-11	SHORT CHIP	0		
		< JACK >			
J801	1-815-603-11	JACK (PHONES)			
**********					
	1-686-791-11	LCD BOARD			
		**********			
	4-244-028-01	HOLDER (LCD)			
		< CAPACITOR >			
C801	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C802	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C803	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C804	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C805	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C806	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C841	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C842	1-162-974-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
CN802	1-784-731-11	CONNECTOR, FFC 9P			
CN803	1-770-010-21	CONNECTOR, BOARD TO BOARD 4P			
		< IC >			
IC803	6-703-289-01	IC BU9728AKS			

Ref. No.	Part No.	Description			Remark
		< LIQUID CRYSTAL DISPLAY >			
LCD801	1-805-113-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< RESISTOR >			
R801	1-216-853-11	METAL CHIP	470K	5%	1/10W
R805	1-216-849-11	METAL CHIP	220K	5%	1/10W
R806	1-216-809-11	METAL CHIP	100	5%	1/10W
R807	1-216-809-11	METAL CHIP	100	5%	1/10W
R808	1-216-809-11	METAL CHIP	100	5%	1/10W
R809	1-216-809-11	METAL CHIP	100	5%	1/10W
R810	1-216-809-11	METAL CHIP	100	5%	1/10W
R841	1-216-817-11	METAL CHIP	470	5%	1/10W
R842	1-216-817-11	METAL CHIP	470	5%	1/10W
R843	1-216-817-11	METAL CHIP	470	5%	1/10W
R844	1-216-817-11	METAL CHIP	470	5%	1/10W
R845	1-216-817-11	METAL CHIP	470	5%	1/10W
R846	1-216-817-11	METAL CHIP	470	5%	1/10W
**********					
	1-674-336-12	LOADING BOARD			
		**********			
		< CONNECTOR >			
* CN151	1-568-943-11	PIN, CONNECTOR 5P			
		< SWITCH >			
S1	1-786-203-11	SWITCH, LEVER (SLIDE) (LOADING IN/OUT DETECT)			
**********					
	A-4731-299-A	MAIN BOARD, COMPLETE (SP, KR)			
	A-4731-302-A	MAIN BOARD, COMPLETE (US, CND)			
	A-4731-355-A	MAIN BOARD, COMPLETE (AUS)			
		**********			
	7-685-645-79	SCREW +BVTP 3X6 TYPE2 TT (B)			
		< CAPACITOR >			
C101	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C102	1-126-960-11	ELECT	1uF	20%	50V
C103	1-126-960-11	ELECT	1uF	20%	50V
C104	1-126-960-11	ELECT	1uF	20%	50V
C105	1-126-960-11	ELECT	1uF	20%	50V
C106	1-126-960-11	ELECT	1uF	20%	50V
C107	1-126-960-11	ELECT	1uF	20%	50V
C108	1-130-476-00	MYLAR	0.0027uF	5%	50V
C109	1-130-496-00	MYLAR	0.12uF	5%	50V
C110	1-130-496-00	MYLAR	0.12uF	5%	50V
C111	1-126-964-11	ELECT	10uF	20%	50V
C121	1-126-964-11	ELECT	10uF	20%	50V
C122	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C123	1-126-964-11	ELECT	10uF	20%	50V
C124	1-126-934-11	ELECT	220uF	20%	10V
C131	1-104-665-11	ELECT	100uF	20%	16V
C132	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C133	1-104-665-11	ELECT	100uF	20%	10V
C141	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C151	1-162-957-11	CERAMIC CHIP	220PF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C152	1-126-960-11	ELECT	1uF	20%	50V
C153	1-126-960-11	ELECT	1uF	20%	50V
C154	1-126-960-11	ELECT	1uF	20%	50V
C155	1-126-960-11	ELECT	1uF	20%	50V
C156	1-126-960-11	ELECT	1uF	20%	50V
C157	1-126-960-11	ELECT	1uF	20%	50V
C158	1-130-476-00	MYLAR	0.0027uF	5%	50V
C159	1-130-496-00	MYLAR	0.12uF	5%	50V
C160	1-130-496-00	MYLAR	0.12uF	5%	50V
C161	1-126-964-11	ELECT	10uF	20%	50V
C171	1-126-964-11	ELECT	10uF	20%	50V
C172	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C173	1-126-964-11	ELECT	10uF	20%	50V
C174	1-126-934-11	ELECT	220uF	20%	10V
C180	1-126-934-11	ELECT	220uF	20%	10V
C181	1-104-665-11	ELECT	100uF	20%	10V
C182	1-126-960-11	ELECT	1uF	20%	50V
C183	1-104-665-11	ELECT	100uF	20%	10V
C185	1-126-960-11	ELECT	1uF	20%	50V
C201	1-104-665-11	ELECT	100uF	20%	10V
C202	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C203	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C204	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C205	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C209	1-104-665-11	ELECT	100uF	20%	10V
C210	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C221	1-126-935-11	ELECT	470uF	20%	6.3V
C222	1-104-665-11	ELECT	100uF	20%	10V
C223	1-104-665-11	ELECT	100uF	20%	10V
C224	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C225	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C226	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C227	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C228	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C229	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C231	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C232	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C251	1-126-961-11	ELECT	2.2uF	20%	50V
C252	1-126-961-11	ELECT	2.2uF	20%	50V
C301	1-126-937-11	ELECT	4700uF	20%	16V
C312	1-126-956-11	ELECT	0.1uF	20%	50V
C313	1-126-935-11	ELECT	470uF	20%	10V
C314	1-126-956-11	ELECT	0.1uF	20%	50V
C315	1-104-665-11	ELECT	100uF	20%	10V
C316	1-126-956-11	ELECT	0.1uF	20%	50V
C317	1-126-935-11	ELECT	470uF	20%	10V
C318	1-126-956-11	ELECT	0.1uF	20%	50V
C319	1-126-935-11	ELECT	470uF	20%	10V
C321	1-126-935-11	ELECT	470uF	20%	10V
C401	1-126-916-11	ELECT	1000uF	20%	6.3V
C402	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C404	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C405	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C406	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C407	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C431	1-126-964-11	ELECT	10uF	20%	50V
C432	1-126-964-11	ELECT	10uF	20%	50V
C433	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remark
C501	1-126-964-11	ELECT	10uF	20%	50V
C502	1-130-495-00	MYLAR	0.1uF	5%	50V
C503	1-130-495-00	MYLAR	0.1uF	5%	50V
		< CONNECTOR >			
CN101	1-568-838-11	CONNECTOR, FFC 21P			
CN102	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P			
CN201	1-785-317-11	PIN, CONNECTOR (STRAIGHT) 5P			
CN202	1-568-864-11	CONNECTOR, FFC 21P			
CN211	1-568-830-11	CONNECTOR, FFC 11P			
CN221	1-784-780-11	CONNECTOR, FFC 19P			
CN301	1-564-505-11	PLUG, CONNECTOR 2P			
CN401	1-785-315-11	PIN, CONNECTOR (STRAIGHT) 3P			
CN402	1-784-780-11	CONNECTOR, FFC 19P			
CN403	1-568-828-11	CONNECTOR, FFC 9P			
		< DIODE >			
D301	6-500-522-21	DIODE 10EDB40-TB3			
D302	8-719-988-61	DIODE 1SS355TE-17			
D303	6-500-522-21	DIODE 10EDB40-TB3			
D304	6-500-522-21	DIODE 10EDB40-TB3			
D401	8-719-988-61	DIODE 1SS355TE-17			
D402	8-719-988-61	DIODE 1SS355TE-17			
D403	8-719-988-61	DIODE 1SS355TE-17			
D404	8-719-988-61	DIODE 1SS355TE-17			
D474	8-719-988-61	DIODE 1SS355TE-17			
D475	8-719-988-61	DIODE 1SS355TE-17			
D501	8-719-988-61	DIODE 1SS355TE-17			
D502	8-719-988-61	DIODE 1SS355TE-17			
D503	8-719-988-61	DIODE 1SS355TE-17			
D504	8-719-988-61	DIODE 1SS355TE-17			
		< GROUND TERMINAL >			
* EP101	1-537-738-21	TERMINAL, EARTH			
* EP201	1-537-738-21	TERMINAL, EARTH			
		< FERRITE BEAD/SHORT >			
FB101	1-414-772-11	FERRITE	0uH		
FB102	1-414-772-11	FERRITE	0uH		
FB103	1-414-772-11	FERRITE	0uH		
FB121	1-216-864-11	SHORT CHIP	0		
FB122	1-216-864-11	SHORT CHIP	0		
FB123	1-216-864-11	SHORT CHIP	0		
FB201	1-414-772-11	FERRITE	0uH		
FB202	1-414-772-11	FERRITE	0uH		
FB203	1-414-772-11	FERRITE	0uH		
FB204	1-414-772-11	FERRITE	0uH		
FB205	1-216-864-11	SHORT CHIP	0		
FB206	1-216-864-11	SHORT CHIP	0		
		< IC >			
IC101	8-759-669-03	IC LC75342			
IC102	8-759-656-83	IC NJM4580MD-(TE2)			
IC201	8-759-598-69	IC BA6956AN			
IC202	8-749-019-25	IC TOTX141 (CD DIGITAL OUT OPTICAL)			
IC301	6-701-760-01	IC uPC3504AHF			
IC302	8-759-231-53	IC TA7805S			

MAIN

Ref. No.	Part No.	Description			Remark
IC303	8-759-071-48	IC TA7807S			
IC304	8-759-394-36	IC BA09T (US, CND)			
IC304	8-759-701-59	IC NJM78M09FA (SP, KR, AUS)			
IC401	6-802-524-01	IC M30622MGN-B08FP			
IC501	8-759-532-64	IC M62703SL-TP			
		< JACK >			
J101	1-770-272-11	JACK, PIN 2P (MD (VIDEO) IN)			
		< TRANSISTOR >			
Q101	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q121	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q122	8-729-900-53	TRANSISTOR	DTC114EK		
Q151	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q180	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q181	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q182	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q183	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q184	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q185	8-729-900-53	TRANSISTOR	DTC114EK		
Q201	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q202	8-729-107-43	TRANSISTOR	2SC3624-L18		
Q203	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q204	8-729-900-53	TRANSISTOR	DTC114EK		
Q301	8-729-049-79	TRANSISTOR	RT1P137S-TP		
Q302	8-729-900-53	TRANSISTOR	DTC114EK		
Q431	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q432	8-729-900-53	TRANSISTOR	DTC114EK		
Q433	8-729-027-30	TRANSISTOR	DTA123YKA-T146		
Q434	8-729-900-53	TRANSISTOR	DTC114EK		
Q501	8-729-119-78	TRANSISTOR	2SC2785-HFE		
		< RESISTOR >			
R101	1-216-833-11	METAL CHIP	10K	5%	1/10W
R102	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R103	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R104	1-216-821-11	METAL CHIP	1K	5%	1/10W
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W
R106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R121	1-216-821-11	METAL CHIP	1K	5%	1/10W
R122	1-216-845-11	METAL CHIP	100K	5%	1/10W
R123	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R124	1-216-837-11	METAL CHIP	22K	5%	1/10W
R125	1-216-805-11	METAL CHIP	47	5%	1/10W
R126	1-216-845-11	METAL CHIP	100K	5%	1/10W
R131	1-216-809-11	METAL CHIP	100	5%	1/10W
R132	1-216-809-11	METAL CHIP	100	5%	1/10W
R133	1-216-809-11	METAL CHIP	100	5%	1/10W
R151	1-216-833-11	METAL CHIP	10K	5%	1/10W
R152	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R153	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R154	1-216-821-11	METAL CHIP	1K	5%	1/10W
R155	1-216-833-11	METAL CHIP	10K	5%	1/10W
R157	1-216-833-11	METAL CHIP	10K	5%	1/10W
R171	1-216-821-11	METAL CHIP	1K	5%	1/10W
R172	1-216-845-11	METAL CHIP	100K	5%	1/10W
R173	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R174	1-216-837-11	METAL CHIP	22K	5%	1/10W
R175	1-216-805-11	METAL CHIP	47	5%	1/10W
R176	1-216-845-11	METAL CHIP	100K	5%	1/10W
R180	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R181	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R182	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R183	1-216-833-11	METAL CHIP	10K	5%	1/10W
R184	1-216-821-11	METAL CHIP	1K	5%	1/10W
R185	1-216-821-11	METAL CHIP	1K	5%	1/10W
R201	1-216-817-11	METAL CHIP	470	5%	1/10W
R202	1-216-821-11	METAL CHIP	1K	5%	1/10W
R210	1-216-809-11	METAL CHIP	100	5%	1/10W
R221	1-216-833-11	METAL CHIP	10K	5%	1/10W
R222	1-216-833-11	METAL CHIP	10K	5%	1/10W
R251	1-216-821-11	METAL CHIP	1K	5%	1/10W
R252	1-216-821-11	METAL CHIP	1K	5%	1/10W
R253	1-216-845-11	METAL CHIP	100K	5%	1/10W
R254	1-216-845-11	METAL CHIP	100K	5%	1/10W
R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R403	1-216-809-11	METAL CHIP	100	5%	1/10W
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-833-11	METAL CHIP	10K	5%	1/10W
R411	1-216-851-11	METAL CHIP	330K	5%	1/10W
R413	1-216-864-11	SHORT CHIP	0		
R417	1-216-833-11	METAL CHIP	10K	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
R420	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R421	1-216-809-11	METAL CHIP	100	5%	1/10W
R422	1-216-809-11	METAL CHIP	100	5%	1/10W
R423	1-216-809-11	METAL CHIP	100	5%	1/10W
R424	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R425	1-216-809-11	METAL CHIP	100	5%	1/10W
R426	1-216-847-11	METAL CHIP	150K	5%	1/10W
R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R428	1-216-843-11	METAL CHIP	68K	5%	1/10W
R429	1-216-833-11	METAL CHIP	10K	5%	1/10W
R430	1-216-833-11	METAL CHIP	10K	5%	1/10W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R433	1-216-809-11	METAL CHIP	100	5%	1/10W
R434	1-216-809-11	METAL CHIP	100	5%	1/10W
R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R437	1-216-809-11	METAL CHIP	100	5%	1/10W
R438	1-216-809-11	METAL CHIP	100	5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-809-11	METAL CHIP	100	5%	1/10W
R443	1-216-809-11	METAL CHIP	100	5%	1/10W
R444	1-216-809-11	METAL CHIP	100	5%	1/10W
R445	1-216-809-11	METAL CHIP	100	5%	1/10W
R446	1-216-809-11	METAL CHIP	100	5%	1/10W
R447	1-216-809-11	METAL CHIP	100	5%	1/10W
R448	1-216-809-11	METAL CHIP	100	5%	1/10W
R449	1-216-809-11	METAL CHIP	100	5%	1/10W

MAIN SP OUT SUB POWER

Ref. No.	Part No.	Description			Remark
R450	1-216-809-11	METAL CHIP	100	5%	1/10W
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-809-11	METAL CHIP	100	5%	1/10W
R453	1-216-809-11	METAL CHIP	100	5%	1/10W
R454	1-216-809-11	METAL CHIP	100	5%	1/10W
R455	1-216-809-11	METAL CHIP	100	5%	1/10W
R456	1-216-809-11	METAL CHIP	100	5%	1/10W
R457	1-216-809-11	METAL CHIP	100	5%	1/10W
R458	1-216-809-11	METAL CHIP	100	5%	1/10W
R459	1-216-809-11	METAL CHIP	100	5%	1/10W
R460	1-216-809-11	METAL CHIP	100	5%	1/10W
R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R469	1-216-809-11	METAL CHIP	100	5%	1/10W
R470	1-216-809-11	METAL CHIP	100	5%	1/10W
R471	1-216-809-11	METAL CHIP	100	5%	1/10W
R472	1-216-809-11	METAL CHIP	100	5%	1/10W
R473	1-216-809-11	METAL CHIP	100	5%	1/10W
R474	1-216-857-11	METAL CHIP	1M	5%	1/10W
R476	1-216-809-11	METAL CHIP	100	5%	1/10W
R477	1-216-809-11	METAL CHIP	100	5%	1/10W
R479	1-216-809-11	METAL CHIP	100	5%	1/10W
R480	1-216-809-11	METAL CHIP	100	5%	1/10W
R482	1-216-809-11	METAL CHIP	100	5%	1/10W
R483	1-216-809-11	METAL CHIP	100	5%	1/10W
R484	1-216-809-11	METAL CHIP	100	5%	1/10W
R489	1-216-809-11	METAL CHIP	100	5%	1/10W
R490	1-216-809-11	METAL CHIP	100	5%	1/10W
R491	1-216-809-11	METAL CHIP	100	5%	1/10W
R494	1-216-797-11	METAL CHIP	10	5%	1/10W
R495	1-216-797-11	METAL CHIP	10	5%	1/10W
R497	1-216-797-11	METAL CHIP	10	5%	1/10W
R500	1-216-809-11	METAL CHIP	100	5%	1/10W
R501	1-216-813-11	METAL CHIP	220	5%	1/10W
R502	1-216-833-11	METAL CHIP	10K	5%	1/10W
R503	1-216-841-11	METAL CHIP	47K	5%	1/10W
R504	1-216-841-11	METAL CHIP	47K	5%	1/10W
R505	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R506	1-216-833-11	METAL CHIP	10K	5%	1/10W
R541	1-216-864-11	SHORT CHIP	0		
R543	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (US, CND)
R543	1-216-864-11	SHORT CHIP	0 (SP, KR, AUS)		
R544	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (US, CND)
R551	1-216-864-11	SHORT CHIP	0		
R552	1-216-864-11	SHORT CHIP	0		
R553	1-216-833-11	METAL CHIP	10K	5%	1/10W
R554	1-216-833-11	METAL CHIP	10K	5%	1/10W
R555	1-216-833-11	METAL CHIP	10K	5%	1/10W
R556	1-216-833-11	METAL CHIP	10K	5%	1/10W
R557	1-216-833-11	METAL CHIP	10K	5%	1/10W
R558	1-216-833-11	METAL CHIP	10K	5%	1/10W
R559	1-216-833-11	METAL CHIP	10K	5%	1/10W
R560	1-216-833-11	METAL CHIP	10K	5%	1/10W
R561	1-216-833-11	METAL CHIP	10K	5%	1/10W
R562	1-216-833-11	METAL CHIP	10K	5%	1/10W
R563	1-216-833-11	METAL CHIP	10K	5%	1/10W
R564	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R565	1-216-833-11	METAL CHIP	10K	5%	1/10W
R566	1-216-833-11	METAL CHIP	10K	5%	1/10W
R567	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< VIBRATOR >			
X401	1-781-107-21	VIBRATOR, CERAMIC (16MHz)			
X402	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SP OUT BOARD			
		**********			
		< CAPACITOR >			
C701	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C702	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C703	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C704	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
		< CONNECTOR >			
CN701	1-564-505-21	PLUG, CONNECTOR 2P			
CN711	1-564-505-11	PLUG, CONNECTOR 2P			
		< SHORT >			
FB706	1-216-296-11	SHORT CHIP	0		
FB707	1-216-296-11	SHORT CHIP	0		
FB708	1-216-296-11	SHORT CHIP	0		
FB709	1-216-296-11	SHORT CHIP	0		
		< TERMINAL >			
J701	1-537-114-21	TERMINAL BOARD (SPEAKER)			
**********					
	1-686-794-11	SUB POWER BOARD			
		**********			
		< CAPACITOR >			
⚠C991	1-113-925-11	CERAMIC	0.01uF	20%	250V (SP, KR, AUS)
⚠C992	1-113-925-11	CERAMIC	0.01uF	20%	250V
C993	1-126-768-11	ELECT	2200uF	20%	16V
C994	1-104-665-11	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN990	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
		< DIODE >			
D990	8-719-988-61	DIODE 1SS355TE-17 (SP, KR, AUS)			
D991	8-719-988-61	DIODE 1SS355TE-17			
D992	6-500-522-21	DIODE 10EDB40-TB3			
D993	6-500-522-21	DIODE 10EDB40-TB3			
D994	6-500-522-21	DIODE 10EDB40-TB3			
D995	6-500-522-21	DIODE 10EDB40-TB3			
		< IC >			
IC991	6-703-627-01	IC NJU7201L40 (T3)			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SUB POWER | SWITCH | TC

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q990	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		(SP, KR, AUS)
Q991	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
		< RESISTOR >			
R991	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R992	1-216-845-11	METAL CHIP	100K	5%	1/10W
R993	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (SP, KR, AUS)
R994	1-216-845-11	METAL CHIP	100K	5%	1/10W (SP, KR, AUS)
		< RELAY >			
⚠RY990	1-755-467-11	RELAY (POWER) (SP, KR, AUS)			
⚠RY991	1-755-467-11	RELAY (POWER)			
		< TRANSFORMER >			
⚠T991	1-437-675-11	TRANSFORMER, POWER (US, CND)			
⚠T991	1-437-677-11	TRANSFORMER, POWER (SP, KR, AUS)			
**********					
	A-4731-306-A	SWITCH BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C807	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C808	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C809	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C810	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C811	1-126-947-11	ELECT	47uF	20%	10V
C812	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C813	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C814	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C815	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C816	1-162-974-11	CERAMIC CHIP	0.01uF		50V
		< CONNECTOR >			
CN801	1-784-780-11	CONNECTOR, FFC 19P			
		< LED >			
D801	8-719-812-44	LED TL0124 (STANDBY)			
D802	8-719-046-36	LED SEL5921A-TP15 (DSG)			
D803	8-719-046-36	LED SEL5921A-TP15 (CD ►II)			
D804	8-719-046-36	LED SEL5921A-TP15 (TUNER BAND)			
D805	8-719-046-36	LED SEL5921A-TP15 (TAPE ◄►)			
		< IC >			
IC801	8-759-826-34	IC NJL74H400A (REMOTE CONTROL RECEIVER)			
		< TRANSISTOR >			
Q801	8-729-900-53	TRANSISTOR	DTC114EK		
Q802	8-729-900-53	TRANSISTOR	DTC114EK		
Q803	8-729-900-53	TRANSISTOR	DTC114EK		
Q804	8-729-900-53	TRANSISTOR	DTC114EK		
Q805	8-729-900-53	TRANSISTOR	DTC114EK		

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R812	1-216-821-11	METAL CHIP	1K	5%	1/10W
R813	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R814	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R815	1-216-821-11	METAL CHIP	1K	5%	1/10W
R816	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R817	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R818	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R819	1-216-833-11	METAL CHIP	10K	5%	1/10W
R820	1-216-821-11	METAL CHIP	1K	5%	1/10W
R821	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R822	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R823	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R824	1-216-833-11	METAL CHIP	10K	5%	1/10W
R825	1-216-837-11	METAL CHIP	22K	5%	1/10W
R831	1-216-817-11	METAL CHIP	470	5%	1/10W
R832	1-216-817-11	METAL CHIP	470	5%	1/10W
R833	1-216-817-11	METAL CHIP	470	5%	1/10W
R834	1-216-817-11	METAL CHIP	470	5%	1/10W
R835	1-216-817-11	METAL CHIP	470	5%	1/10W
R851	1-216-809-11	METAL CHIP	100	5%	1/10W
R852	1-216-809-11	METAL CHIP	100	5%	1/10W
R853	1-216-809-11	METAL CHIP	100	5%	1/10W
R854	1-216-809-11	METAL CHIP	100	5%	1/10W
R855	1-216-809-11	METAL CHIP	100	5%	1/10W
		< ROTARY ENCODER >			
RV801	1-476-730-11	ENCODER, ROTARY (VOLUME)			
RV802	1-418-859-21	ENCODER, ROTARY (TREBLE)			
RV803	1-418-859-21	ENCODER, ROTARY (BASS)			
		< SWITCH >			
S801	1-762-875-21	SWITCH, TACTILE (I/⏻)			
S802	1-762-875-21	SWITCH, TACTILE (DSG)			
S803	1-762-875-21	SWITCH, TACTILE (TUNING +, ►► ▷▷I)			
S804	1-762-875-21	SWITCH, TACTILE (⏏ (CD))			
S805	1-762-875-21	SWITCH, TACTILE (CD ►II)			
S806	1-762-875-21	SWITCH, TACTILE (■ (CD))			
S807	1-762-875-21	SWITCH, TACTILE (TUNING –, I◁◁ ◄◄)			
S808	1-762-875-21	SWITCH, TACTILE (REPEAT, FM MODE)			
S809	1-762-875-21	SWITCH, TACTILE (PLAY MODE/DIRECTION, TUNING MODE)			
S810	1-762-875-21	SWITCH, TACTILE (FUNCTION)			
S811	1-762-875-21	SWITCH, TACTILE (DISPLAY)			
S812	1-762-875-21	SWITCH, TACTILE (CD SYNCHRO)			
S813	1-762-875-21	SWITCH, TACTILE (TUNER BAND)			
S814	1-762-875-21	SWITCH, TACTILE (● REC)			
S815	1-762-875-21	SWITCH, TACTILE (II)			
S816	1-762-875-21	SWITCH, TACTILE (■ (TAPE))			
S817	1-762-875-21	SWITCH, TACTILE (TAPE ◄►)			
**********					
	A-4731-316-A	TC BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C601	1-126-947-11	ELECT	47uF	20%	16V
C602	1-130-483-00	MYLAR	0.01uF	5%	50V

TC

Ref. No.	Part No.	Description			Remark
C604	1-130-495-00	MYLAR	0.1uF	5%	50V
C605	1-126-964-11	ELECT	10uF	20%	50V
C606	1-126-960-11	ELECT	1uF	20%	50V
C607	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C608	1-126-961-11	ELECT	2.2uF	20%	50V
C610	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C611	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C612	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C613	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C614	1-130-483-00	MYLAR	0.01uF	5%	50V
C630	1-126-933-11	ELECT	100uF	20%	16V
C632	1-126-964-11	ELECT	10uF	20%	50V
C633	1-126-964-11	ELECT	10uF	20%	50V
C634	1-126-964-11	ELECT	10uF	20%	50V
C635	1-126-960-11	ELECT	1uF	20%	50V
C639	1-126-964-11	ELECT	10uF	20%	50V
C640	1-126-947-11	ELECT	47uF	20%	16V
C641	1-126-961-11	ELECT	2.2uF	20%	50V
C642	1-137-150-11	MYLAR	0.01uF	5%	100V
C643	1-130-485-00	MYLAR	0.015uF	5%	50V
C644	1-130-481-00	MYLAR	0.0068uF	5%	50V
C645	1-130-481-00	MYLAR	0.0068uF	5%	50V
C646	1-130-486-00	MYLAR	0.018uF	10%	50V
C647	1-126-964-11	ELECT	10uF	20%	50V
C651	1-126-947-11	ELECT	47uF	20%	16V
C652	1-130-483-00	MYLAR	0.01uF	5%	50V
C654	1-130-495-00	MYLAR	0.1uF	5%	50V
C655	1-126-964-11	ELECT	10uF	20%	50V
C656	1-126-960-11	ELECT	1uF	20%	50V
C657	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C658	1-126-961-11	ELECT	2.2uF	20%	50V
C660	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C661	1-162-928-11	CERAMIC CHIP	120PF	5%	50V
C662	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C663	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C664	1-130-483-00	MYLAR	0.01uF	5%	50V
C681	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
		< CONNECTOR >			
CN602	1-770-516-31	CONNECTOR, FFC 8P			
CN603	1-784-780-11	CONNECTOR, FFC 19P			
		< DIODE >			
D681	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC601	6-701-655-01	IC HA12236F			
IC602	8-759-508-69	IC BA3126N			
		< SHORT >			
JR602	1-216-296-11	SHORT CHIP	0		
JW630	1-216-864-11	SHORT CHIP	0		
		< COIL >			
L601	1-410-780-11	INDUCTOR	27mH		
L651	1-410-780-11	INDUCTOR	27mH		

Ref. No.	Part No.	Description			Remark
		< TRANSISTOR >			
Q639	8-729-119-77	TRANSISTOR	2SA1175-FEK		
Q640	8-729-029-66	TRANSISTOR	DTC114ESA		
Q641	8-729-801-93	TRANSISTOR	2SD1387		
Q642	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q643	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q680	8-729-029-66	TRANSISTOR	DTC114ESA		
Q681	8-729-029-40	TRANSISTOR	DTA124ESA		
Q691	8-729-900-53	TRANSISTOR	DTC114EK		
Q692	8-729-900-53	TRANSISTOR	DTC114EK		
Q693	8-729-140-04	TRANSISTOR	2SB1116A-L		
Q694	8-729-116-57	TRANSISTOR	2SB1068-K		
		< RESISTOR >			
R601	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R602	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R603	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R604	1-216-833-11	METAL CHIP	10K	5%	1/10W
R605	1-216-841-11	METAL CHIP	47K	5%	1/10W
R606	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R607	1-216-833-11	METAL CHIP	10K	5%	1/10W
R609	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R610	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R611	1-216-837-11	METAL CHIP	22K	5%	1/10W
R630	1-216-857-11	METAL CHIP	1M	5%	1/10W
R631	1-216-837-11	METAL CHIP	22K	5%	1/10W
R632	1-216-821-11	METAL CHIP	1K	5%	1/10W
R633	1-216-833-11	METAL CHIP	10K	5%	1/10W
R635	1-216-809-11	METAL CHIP	100	5%	1/10W
R640	1-216-833-11	METAL CHIP	10K	5%	1/10W
R641	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R642	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
⚠R643	1-219-787-17	FUSIBLE	5.6	5%	1/4W F
⚠R644	1-219-787-17	FUSIBLE	5.6	5%	1/4W F
R645	1-216-836-11	METAL CHIP	18K	5%	1/10W
R646	1-216-836-11	METAL CHIP	18K	5%	1/10W
R647	1-216-837-11	METAL CHIP	22K	5%	1/10W
R648	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R651	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R652	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R653	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W
R655	1-216-841-11	METAL CHIP	47K	5%	1/10W
R656	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R657	1-216-833-11	METAL CHIP	10K	5%	1/10W
R659	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R660	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R661	1-216-837-11	METAL CHIP	22K	5%	1/10W
R680	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R681	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R682	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R683	1-216-819-11	METAL CHIP	680	5%	1/10W
R684	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R685	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R686	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R687	1-216-841-11	METAL CHIP	47K	5%	1/10W
R688	1-216-829-11	METAL CHIP	4.7K	5%	1/10W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description			Remark
R689	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R690	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R691	1-216-833-11	METAL CHIP	10K	5%	1/10W
R692	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R693	1-216-841-11	METAL CHIP	47K	5%	1/10W
R694	1-216-837-11	METAL CHIP	22K	5%	1/10W
R695	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< VARIABLE RESISTOR >			
RV602	1-241-765-11	RES, ADJ, CARBON 22K			
RV603	1-241-768-11	RES, ADJ, CARBON 220K			
RV652	1-241-765-11	RES, ADJ, CARBON 22K			
RV653	1-241-768-11	RES, ADJ, CARBON 220K			
		< TRANSFORMER >			
T601	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
**********					
		MISCELLANEOUS			
		**********			
52	1-796-456-31	DECK, MECHANICAL			
54	1-824-192-11	WIRE (FLAT TYPE) (8 CORE)			
55	1-773-110-11	WIRE (FLAT TYPE) (19 CORE)			
105	1-776-183-11	WIRE (FLAT TYPE) (19 CORE)			
155	1-769-916-11	WIRE (FLAT TYPE) (9 CORE)			
253	1-824-930-11	WIRE (FLAT TYPE) (21 CORE)			
⚠255	1-769-079-22	CORD, POWER (KR)			
⚠255	1-777-071-83	CORD, POWER (SP)			
⚠255	1-783-203-12	CORD, POWER (AUS)			
⚠255	1-783-531-31	CORD, POWER (US, CND)			
256	1-693-603-31	TUNER UNIT (SP, AUS)			
256	1-693-605-11	TUNER UNIT (KR)			
256	1-693-623-31	TUNER UNIT (US, CND)			
257	1-769-937-11	WIRE (FLAT TYPE) (11 CORE)			
⚠302	1-468-729-11	REGULATOR, SWITCHING (US, CND)			
⚠302	1-468-730-11	REGULATOR, SWITCHING (SP, KR, AUS)			
304	1-500-484-21	CLAMP, SLEEVE FERRITE			
305	1-773-152-11	WIRE (FLAT TYPE) (21 CORE)			
513	A-4735-082-A	MAGNET ASSY			
⚠557	8-820-020-11	OPTICAL PICK-UP KSS-213D/Z-RP			
558	1-792-024-11	WIRE (FLAT TYPE) (16 CORE)			
M101	X-2161-802-1	CHASSIS ASSY (DCP), T.T (SPINDLE)			
M102	X-2625-769-1	GEAR ASSY (MB) (RP), MOTOR (SLED)			
M201	A-4735-337-A	MOTOR (LD) ASSY (LOADING)			

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REVISION HISTORY

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Ver.	Date	Description of Revision
1.0	2003.04	New